



Jouce & Stantey Wells

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# JUNIOR CO-OPERATIVE VARIETY TESTS

WHEAT, BARLEY and CROP COMPARISON

1950



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# Foreword

By the President of Saskatchewan Co-operative Producers Limited

Since its inception the Saskatchewan Wheat Pool has devoted its efforts toward the achievement of a balanced and stable agricultural economy in Western Canada. This goal will be realized only when the uncertainties of production and distribution have been eliminated.

I am sure the pioneers of our province must look back with pride on their past accomplishments. In the short space of fifty years we have seen our agricultural economy developed to the place where Saskatchewan is known and respected throughout the world for the quality of its food production.

During recent years Canadian farmers have played a leading role in organizing the agricultural producers of the world. Through policies of food distribution such as the International Wheat Agreement, promoted by organized farmers, we in Western Canada have achieved a stability of wheat marketing hitherto unknown. It will be our task in the years ahead to develop new agencies of distribution and improve those which we have already built.

As these agencies develop, however, I believe we will be required to increase our production far beyond its present level to meet the increased consumer demand that will result from policies of international orderly marketing. This objective can only be met by continuous research, and co-operative activities such as the annual Wheat Pool program of scientifically conducted cereal variety tests. The results of the projects undertaken during the 1950 season are contained in this booklet. It is our hope that the information provided will assist farmers in selecting those varieties which are most suitable for use in their districts.

The Wheat Pool organization is proud to have associated with it in this work, the young people of rural Saskatchewan. Our junior cooperators have always shown a willingness to do more than their share toward the success of each testing project. Their enthusiasti cco-operation, without which we could not continue these tests, is an inspiration to all of us. On behalf of the Saskatchewan Wheat Pool organization, it is my privilege to express our gratitude to all those who took part in the projects during 1950.

# Introduction

THIS booklet contains a summary of the results of 332 Junior Co-operative Variety Tests conducted by the Saskatchewan Wheat Pool during 1950. Assistance in planning and supervising the tests was given by the University of Saskatchewan. The individual tests were seeded and cared for by young men and women throughout the province. These young people were chosen for the work by Wheat Pool delegates. Some of them were experienced test supervisors and others were taking part in the project for the first time.

The following table shows the type of tests conducted and the number of each:

Project	No. of Individual Tests	Varieties Used
Wheat	191	Thatcher, Lee, Redman, Rescue and Saunders*
Barley	71	Hannchen, Montcalm, Moore and Vantage.
Crop Comparison	70	Thatcher wheat, Fortune oats, Montcalm barley, Dakota flax.

\*Only four varieties were used in each wheat test. Rescue was included in the tests in Cereal Variety Zones 1A to 2F, where sawfly resistance is an important characteristic. It was replaced by Saunders in tests throughout Cereal Variety Zones 3A to 4B. (See zone map, page 33)

The wheat and barley projects were summarized for comparison on a yield per acre basis with several other important characteristics given consideration. The results are given for individual tests, and in addition, are summarized according to cereal variety zones. The section of the booklet dealing exclusively with wheat tests begins on page 9. The barley section begins on page 40.

The crop comparison project conducted during 1950 was planned as the final test in a three-year program to determine the relationship, on a cash-value-per-acre basis, between the four major spring crops grown in Saskatchewan. Projects of this type were conducted during 1948 and 1949, and a considerable amount of data has been assembled and published on the results. During 1950, however, the tests were badly frozen. Because of the variation in ripening time the frost affected each crop in a different way, depending upon its stage of development when the frost occurred. Thus, while the results of individual tests are of some interest, it is felt that cash-value comparisons and zone summaries under these conditions would be misleading. The Crop Comparison section of the booklet, therefore, contains only a brief introductory paragraph and a summarization of the individual results of the tests. This section begins on page 54.

#### DESCRIPTION OF TESTS

A diagram of the wheat test appears on page 6. Twenty rows were sown, allowing for five replicates of each variety. The rows were  $16\frac{1}{2}$  feet in length and were placed 18 inches apart. For protection purposes, an extra buffer row was placed at each end of the test and the entire project was surrounded by a winter wheat border.

The barley tests were sown in a similar manner. Each test consisted of sixteen plots of two rows each. The rows, each  $16\frac{1}{2}$  feet in length, were placed 1 foot apart. The sixteen plots allowed for each of the four varieties to be replicated four times throughout the test. One of the rows in each plot was used for testing purposes while the other served as a protection to the test row. For additional protection the entire test was surrounded by a winter wheat border.

The crop comparison tests consisted of sixteen plots of four rows each. The rows were  $16\frac{1}{2}$  feet in length and were sown 1 foot apart. The two centre rows of each plot were harvested for yield and the two outside rows were used for protection and segregation. The entire test consisted of sixty-four rows and was surrounded by a winter wheat border.

Crude Protein calculated at 13.5% moisture basis)

Wheat Poo					Crude Proteir at 13.5% moi		
District & Sub-dist.	Supervisor	Address	Thatcher %	Redman %	Lee %	Rescue %	Saunders %
8-3 8-3 8-4 8-5 8-6 8-6 8-7 8-9 8-10 9-1 9-2	Edwin Mitrenga, Gerald Smerchyr Donald Berndt, ianne and Paul Metro Walchuk, Bill Samchuk, R. Leventine Ochity Allan A. Lister, Wilma E. Eyre, Robert J. Nesbit	, Duff. Melville. Indexille. Melville. Meregin.	13.5 13.9 14.6 13.6 12.0 12.4 13.2 13.4 12.1 14.4 14.6	13.7 13.5 14.2 13.2 11.0 12.1 12.8 13.4 11.8	14.1 15.4 16.5 14.7 12.8 13.6 14.8 14.3 14.3		13.4 13.5 14.4 13.5 11.3 12.6 12.7 13.5 12.5
9-2 9-3 9-3 9-4 9-6 9-6 9-7 9-8 9-9 9-10	Enid	Edward C. N. Beckett, mnichy e, Kelliher till, Strasbourg kel, Lanigan ds, Nokomis Semans Jansen Wishart., Elfros	15.2 14.6 15.7 14.3 16.6 15.8 13.2 14.3 13.7 16.2	15.3 14.5 15.4 14.3 16.2 15.8 13.5 14.5 13.3 16.0	16.2 14.9 16.2 14.5 17.7 16.6 13.9 15.8 14.7	15.1 — 14.7 16.2 15.8 13.3 —	14.2 15.1 — — — 14.0 13.6 15.8
10-1 10-1 10-2 10-4 10-6 10-8 10-8 10-9 10-10	H. Merle Bisson, Wayne L. Wilson John M. McDon William A. Gott: Eldon Stein, Sim Alan L. Wolfe, I. Alan L. Haight, Keith H. Dahlen	cs, Chamberlain	15.0 15.6 16.0 14.4 15.4 14.7 17.9 15.4 16.3	14.4 15.0 15.5 14.4 14.9 14.7 16.8 15.2 15.0	16.2 16.7 16.0 14.4 16.3 16.3 17.2 16.3 16.0	15.0 15.3 15.9 14.5 15.4 14.7 17.7 15.4 15.8	
11-5 11-7 11-8 11-8 11-9	Gary A. Clemend Dale M. Scrivens J. Esther Barrett Mary Pankratz, Ralph G. Hurst,	ee, Pinkham	14.8 13.9 15.6 15.0 15.1	14.6 13.9 15.0 14.6 14.7	15.5 15.4 16.5 16.3 15.7	15.2 14.0 15.2 15.2 15.3	=
12-1 12-2 12-3	Warren H. Drefs Ernest G. Singer Donald O. Roger Alois Welter, Br Roy W. Greenwa Mike Klotz, Der Charles W. Orr.	, Biggar , Biggar , S, Kelfield Dadacres , Bid, Tako , Izil Neilburg , Gallivan , Ference (Pighgate)	15.0 16.1 14.7 15.7 14.2 14.8 15.4 14.3 15.3	14.9 15.7 14.5 15.3 13.7 15.5 14.5 14.1	16.7 17.1 15.9 15.7 14.7 15.8 16.8 14.7 16.3	15.1 15.9 14.6 15.9 14.3 15.3	    15.0 13.8 14.9
13–9 13–11	Marjorie I. Berg Albert Warkenti Jack R. Campbe Stuart N. McKe Maynard E. Wal Jimmy Agar, Flo Ernest Beaulieu, Susan N. Iwasiul Harry Hleck, En	Srecht, Bay Trail, , Leroy, , Dundurn	14.6 13.3 17.0 16.1 14.8 15.1 15.1 14.8 16.7 14.7	14.9 13.1 16.2 15.9 15.2 15.1 15.0 14.9 17.1	15.2 14.0 17.3 16.2 15.9 16.2 16.4 15.1 17.9	17.3 16.1 14.9 15.4 14.9	14.9 13.7 — — 14.5 — 15.9 14.1
14-3 14-4 14-7 14-8 14-9	Lorne A. Hufnag Floyd G. Dahl, I Michael Nawrocl Murray F. Tatlo William A. Bruce Jack Lalonde, Ar J. Louis J. Riou, Kenneth Morten	Okla Ouill Lake el, Sunset Lake ahlton ci, Sylvania w, Resource e, Brooksby borfield Arborfield sep, Prontrilas c, Smoky Burn	12.7 15.7 14.4 15.0 15.3 14.8 14.3 11.4 15.0 14.2 11.3	12.5 15.5 13.6 14.7 14.5 14.0 14.1 10.4 14.5 14.1	13.9 16.8 14.7 16.1 16.0 14.9 15.2 11.5 15.8 15.8		12.5 14.8 13.7 14.3 14.6 14.8 14.4 11.1 15.1 13.7
15–11	Dan R. Hunchal Billy H. O. Reed Clifton A. Browr Elmer Paczay, Pat D. Daly, Sno Harry N. Roman Albert P. Molliso	Hepburn. c, Blaine Lake l, Shell Lake l, Canwood Paddockwood wden chuk, Janow Corners on, Garrick	15.0 16.3 12.9 15.0 11.5 14.2 14.0 14.3	14.8 16.3 12.1 15.0 10.5 13.3 13.2 14.7	15.7 17.7 13.2 14.6 11.6 14.5 13.8 15.2		14.7 16.2 12.2 14.7 11.5 14.2 13.5 14.6
16-6	Morris Woytuik, J. Leonard A. Pe Lano R. Hinde, Kenneth T. Ande J. H. Arnold Mus Harry L. Hunter Taras Hawryliw, George Willick, l	sch, Radissonbeerg, Speers Whitkow rron, Edam Waseca waseca rsen, Lloydminster ich, Paradise Hill , Spruce Lake Glaslyn Mildred rintosh	14.5 15.0 15.8 14.8 15.8 15.7 16.7 15.7 14.7 15.1	14.6 15.0 15.1 13.8 15.8 14.5 15.8 14.5 15.6 14.4 15.3	15.2 15.2 16.8 15.6 17.2 15.5 16.8 16.9 16.3 15.5		14.2 14.7 15.2 14.7 15.5 14.8 16.5 14.8 14.9 14.4

# JUNIOR CO-OPERATIVE VARIETY TESTS 1950

# PROTEIN CONTENT OF WHEAT VARIETIES Individual Test Results by Wheat Pool Districts

Wheat Poo	1		(calculated a	rude Protein t 13.5% mo	n isture basis)	
District & Sub-dist.	Supervisor Address	Thatcher %	Redman %	Lee %	Rescue %	Saunders %
1-1 1-2	Robert and Murray Gilmer, Carievale Melvin Belmore, Redvers	12.8 12.3	12.4 11.0	15.0 12.9	_	12.2 11.7
1-3		13.1	13.0	15.0	=	13.6
1-4 1-5	Donald Turk, Hirsch. Reginald V. Matthies, Bryant. Corrinne Swenson, Midale. Peter J. McKelkie, Bromhead. Louis A. Richaud, Forget.	13.7 12.5	13.6 12.6	14.4	13.3	_
1-6	Corrinne Swenson, Midale	14.5	14.5	13.4 14.9	11.9 14.8	_
1-7	Peter J. McKelkie, Bromhead	14.5 14.9	14.1	14.8	14.1	_
1-9 1-9		14.4	14.7 14.2	16.4 14.9	14.9 13.7	_
2-1	Anna E. Appelquist, Neptune	13.9	13.5	14.8	13.7	_
2-5 2-6	Melya F. Schobert Melayal	15.5 13.4	14.8 13.4	15.7 14.4	15.0 13.7	=
2-7	Carl Klein, Limerick	17.4 15.1	16.8	17.8 15.7	16.8	_
2-8 2-8	Rodney F. A. Dahlman Readlyn	15.1 16.1	14.8 16.1	15.7 16.1	14.8 15.3	_
2-9	John C. Leonard, Ogema	14.6	15.1	16.6	14.9	_
2-10 2-10	Bennie Smith, Khedive Vernon I. Loucks, Pangman	15.1 13.7	14.7 14.0	15.9 16.5	15.0 14.6	_
3-1	Gordon F. Cowie, Mankota	14.9	14.5	15.0	14.9	_
3-1	Gordon F. Cowie, Mankota	19.4 15.2	19.0	18.8	19.4 15.2	_
3-2 3-2	Jack A. Davidson, Ponteix	16.5	14.5 15.1	16.2 15.9 17.0	16.1 16.5	
3-4 3-6	Rodney A. Hyam, Claydon	16.1 13.6	16.6 13.3	17.0 13.5	16.5 14.2	_
3-6	Robert S. Arendt, Eastend	14.6	15.5 12.1	15.8 12.9	14.9	_
3-7 3-7	John W. Rebbeck, South Fork	12.5 14.2	12.1 13.9	12.9 15.2	12.8	=
3-9	Allan R. Oliver, Crichton	16.3	16.1	16.9	14.4 16.7	_
3–9 3–10	Wilson, McCord. P. Jack Orr, Broncho. Jack A. Davidson, Ponteix. Rodney A. Hyam, Claydon. Donald E. Neely, Carnagh. Robert S. Arendt, Eastend. John W. Rebbeck, South Fork. Jack B. Nielson, Eastend. Allan R. Oliver, Crichton. Daniel J. G. Ruest, Admiral. Lloyd E. Carpenter, Hazenmore. Donald L. Turseon. Kincaid.	15.7 15.9	15.6 15.7	16.7 16.8	16.0 16.0	=
3-10		16.7	15.8	16.4	16.7	_
4-2 4-4	Shirley A. Moch, Hatton	16.8 18.2	16.0 18.0	16.2	16.2 17.4	_
4-6	H. Dean Mortensen, Gull Lake Kenneth J. Sawby, Golden Prairie Clarence Albrecht, Linacre	15.8	15.8	18.4 16.3 16.7	15.6 15.6	=
4-7 4-7	Clarence Albrecht, Linacre Lawrence W. Pudwell, Richmound	16.7 16.7	14.1 15.9	16.7	15.6 16.8	=
4-9	Charles E. Martin, Sceptre	14.8	15.0	17.4 15.5	15.4	
4-9	Clifford Fyke, Sceptre	16.1	15.8	17.0	16.8	-
5–1 5–2	Clifford Fyke, Sceptre James R. Noble, Mitchellton. Edmund G. and Gerald E. Jacob, St. Boswells. Thomas J. Runcie, Pambrun. Leona B. Veer, Waldeck. Raymond J. Rambow, Hodgeville. Charles E. Box, Courval. T. Glyn Morgan, Old Wives. Clive T. Campbell, Parkbeg. Grant S. Budd, Caron. Joyce E. and Stanley T. Wells, Tuxford. Donald G. Nash, Eyebrow. Gordon E. May, Secretan. James C. McKay, Log Valley. Henry Unger, Ernfold. Lohn W. Tobias, Vibank.	11.9	11.4	12.4	12.2	_
5–3 5–4	Thomas J. Runcie, Pambrun	16.2	15.7 13.8	16.9 14.5	16.5 14.3	_
5-5	Raymond J. Rambow, Hodgeville	14.3 15.2	15.2	15.9	15.4	_
5–6 5–6	T Glun Morgan Old Wives	13.2 14.3	13.9 13.9	14.8	13.3	
5–7 5–7	Clive T. Campbell, Parkbeg	16.7	16.3	14.5 17.6	13.6 17.4	-
5–7 5–8	Iovee E. and Stanley T. Wells.	14.4	14.1	15.3	14.2	-
-	Tuxford	13.2	13.4	13.8	11.9	_
5–8 5–9	Gordon E. May, Secretan	16.2 14.4	15.9 14.2 16.2	16.7 15.4	15.5 14.4	_
5-10 5-10	James C. McKay, Log Valley	16.2 15.3	16.2 15.3	16.6 17.1	16.0 16.0	
6-2	John W. Tobias, Vibank. Frank Sattler, Milestone. Wilfred R. G. Filazek, Spring Valley. M Doreen Jeffery, Briercrest. Bob L Pittendrigh, Zehner. Kenneth J. Turpin, Sintaluta. Clifford A. Gorby, Indian Head. William J. Mazgar Fort Ou's poelle.	14.7	14.0	15.6	_	14.3
6-3	Frank Sattler, Milestone	13.6 15.7	13 2 14.8	14.0	13.8	_
6-4 6-6	M Doreen Jeffery, Briercrest,	13.4	13.1 12.1	16.2 14.5 12.9	15.3 13.1	_
6-7	Bob L Pittendrigh, Zehner	11.9 14.6	12.1 14.1	12.9 15.1	12.0	14.2
6–8 6–8	Clifford A. Gorby, Indian Head	13.4	12.5 14.3	13.5		12.8
6-9 6-10	William J Mlazgar, Fort Qu'Appelle Raymond J. Kistner, Disley	15.0 17.1	14.3 16.9	16.6 16.9	16.3	14.5
6-10	James E. McKechnie, Bethune	15.1	14.5	15.9	15.6	-
7-1	Dick F. Thompson, Kelso	13.2 12.3	13.0	15.2	_	14.2 13.2
7-2	T. Elvin Axten, Moosomin	14.6	12.3 14.3	14.1 16.1 12.7	_	16.0
7-3	R B, Ross Clements, Vandura	11.0	10.9 12.6	12.7 15.0	=	11.8 13.3
7-1 7-2 7-2 7-3 7-4 7-5 7-6 7-7	Dick F. Inompson, Reso	11.9	11.7	13.9	11.9	
7-6	Joe Erza, Candiac	13.0 13.4	11.7 13.4	12.3 14.7	=	11.7 13.9 13.3
7-8 7-9	Thomas D. Ede, Whitewood	13.4	14.0	14.7	-	13.3
7-9 7-10	Robert C. Landine, Stockholm	13.5 13.5	13.7 15.0	16.1 16.1	_	14.4 14.5 13.2
7-11	Lyane E. D. Turoth, Creeman Joe Erza, Candiac. Robert J. Archer, Broadview. Thomas D. Ede, Whitewood. Fred W. Baseley, Jr., Spy Hill. Robert C. Landine, Stockholm. Vernon L. Miller, Lemberg.	13.2	13.2	15.2	_	13.2
8-1 8-1	Ambrosie Sobkow, Calder Elmer Haberstock, Churchbridge	14.0 13.2	13.8 13.2	15.1 14.3	_	13.3 12.5
8-2	James Rooney, Saltcoats	14.4	14.1	15.4	-	13.9

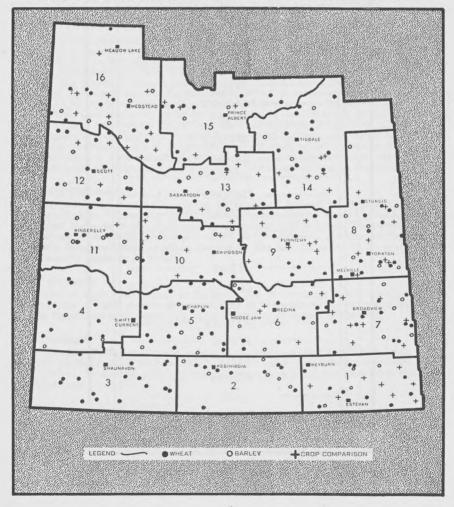
#### ORGANIZATION OF THE TESTING PROGRAM

In order to determine the suitability of a variety for use in different parts of the province it is necessary to conduct tests under as many different types of soil and climate as possible. An attempt was made in 1950, therefore, to place two tests in each of the 166 Wheat Pool sub-districts of Saskatchewan. With few exceptions the desired distribution was achieved. This is illustrated in the map below which shows the location of each test.

As the success of the project was dependent upon the accuracy with which each test was carried out, it was necessary to choose as test supervisors a group of dependable young farm people who had a keen interest in this type of work. Selection of the supervisors in each sub-district was carried out by the Wheat Pool delegate for the area. The Junior Co-operators chosen were, in most cases, between the ages of 16 and 21 years.

The equipment required for each test was supplied from Head Office of the Wheat Pool in Regina. Individual parcels of seed were carefully prepared and were shipped to the supervisors together with full instructions explaining in detail the method of seeding the test. During the growing season, close contact was maintained between each of the 332 Junior Co-operators and the Junior Co-operative Department of the

MAP SHOWING LOCATION OF TESTS ACCORDING TO WHEAT POOL DISTRICTS

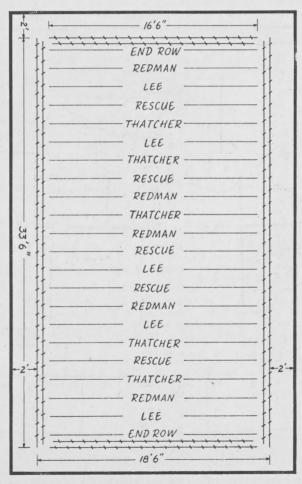


Wheat Pool organization. The co-operators were requested to complete and forward regular progress reports concerning the comparative development of each variety. The information from these reports was summarized and was used as the basis for the results which appear in the booklet. When the grain was ripe, each co-operator carried out harvesting operations according to special instructions which had been supplied to him. Care was taken to ensure that the returns for each row were parcelled separately and were carefully marked in order to prevent errors in identification. The sheaves were dried and turned over to the nearest Pool elevator agent for shipment to Head Office. On arrival at Regina, the sheaves were threshed separately and the yields were recorded. A sample of each variety was cleaned, weighed in pounds per measured bushel and graded. The sample was then forwarded to the Chemistry Department of the University of Saskatchewan where protein analyses were carried out.

Finally the yield, bushel weight and grade of each variety were entered on a summary sheet together with the detailed information which the co-operator had supplied in his reports during the growing season.

As has been the case during the past sixteen years, the project was planned and

PLAN OF WHEAT TEST



The crossed lines represent border rows of winter wheat. A two-foot pathway was left between the winter wheat border and the surrounding field crop. The barley and crop comparison tests were laid out in a similar manner except that 33 rows were sown in the barley projects and 64 rows in the crop comparison tests.



Left to right: Variety Test supervisers Robert Nesbitt, Cupar; Geraldine Topinka, Zeneta; Grant Budd, Caron.

supervised under the guidance of Dr. J. B. Harrington, Professor of Field Husbandry, University of Saskatchewan, Saskatoon. The threshing, summarizing and statistical analysis in connection with the project were carried out at Head Office of the Saskatchewan Wheat Pool under the direction and supervision of I. K. Mumford.

#### FACTS TO BE REMEMBERED IN READING AND STUDYING RESULTS

The information compiled from the results of tests carried out during a single year should not be considered as conclusive evidence in the selection of a variety. A variety which gives a favorable performance in any one season may not do well under conditions which exist the following year. When making a choice, therefore, the farmer is advised to study the results of several years' tests and in this regard the pamphlet entitled, "Varieties of Grain Crops for Saskatchewan, 1951," is recommended. This pamphlet is compiled by the Saskatchewan Cereal Variety Committee on the basis of information derived from tests conducted under the supervision of the University of Saskatchewan, the Dominion Experimental Farms, and the Saskatchewan Wheat Pool. Copies have been supplied to each Pool elevator agent for the use of farmers in his district. Additional copies may be obtained free of charge from the University of Saskatchewan, Saskaton; the Saskatchewan Department of Agriculture, Regina; Saskatchewan Co-operative Producers Limited, Regina; or any Dominion Experimental farm in the province.

## **Necessary Difference**

The statistical term "Necessary Difference" is used in different parts of this report. The "Necessary Difference" is calculated by applying an approved statistical formula to the yield results of each individual test. The result of the calculation is shown in bushels per acre and it represents the amount by which a variety must outyield another variety in the test in order to be considered significantly superior in yield.

#### Straw Strength

Straw strength was reported on the basis 10-0. If the plants in a plot were straight and erect, the strength of straw was recorded as 10. If the straw showed signs of weakness a lower figure was used, depending upon the degree of weakness observed.

#### **Neck Strength**

This term appears only in the section of the report dealing with barley tests. Neck strength was recorded on the basis of 1, 2, 3, where 1 indicated a strong neck holding the head upright, 2 indicated a neck of medium strength, while 3 was used when the neck appeared weak.

#### Results of Individual Tests

The results of individual tests appear in the following tables: Wheat No. 23; Barley No. 37; Crop Comparison No. 38. These results are arranged according to Wheat Pool districts (illustrated on page 5), so that a reader who wishes to study the results in a particular area may readily locate the tests in which he is interested. It should be emphasized that the results of a single test give an accurate comparison of the varieties only under the conditions which exist on the farm where the test is located. An examination of the results in these tables will reveal the fact that the varieties do not show similar relationships in all areas of the province. Results may differ widely, even in tests grown

relatively close together. This variation may be due to several causes, most important of which are differences in soil type, climatic conditions, and date of seeding.

#### Grading Remarks

In determining commercial grades, bushel weight is a very important factor. However, there are many other factors which may lower the grade of a sample.

In the individual results, the column headed "Grading Remarks" contains abbreviations which are used to denote any adverse characteristics other than bushel weight, which appear in the sample of grain.

The following abbreviations have been used to indicate the various defects:

-Bleached -Frosted B. Bl.—Badly Bleached B.P.—Black Point Br.—Broken D.—Dark S.F.-B.F.--Slightly Frosted B. Pl.—Badly Peeled -Badly Frosted S .- Smut G.—Green V.G.—Very Green Sh.—Shrunken Spr.—Sprouted Dcl.—Discolored
Dg.—Damaged
E.—Ergoty
S.E.—Some Ergoty St.—Stained I.—Immature S.I.—Slightly Immature Stch.-Starchy M.—Mildewed W.—Weathered W.S .- Weather Stained Pk.-Pink

#### ANALYSIS OF DATA

The individual tests were grouped for analysis on the basis of cereal variety zones. These zones, the boundaries of which were laid out by the Saskatchewan Cereal Variety Committee, are described below and illustrated on pages 32 and 33. Each zone represents an area within which the soil is of the same general type and where climatic conditions are normally somewhat similar. It should be stressed, however, that local conditions within a zone sometimes vary considerably from the average of the zone.

## Cereal Variety Zones—Prevailing Soil Type and Climatic Conditions

- 1A Brown soils; subject to frequent droughts.
- 1B Brown soils; subject to more frequent droughts than 1A.
- 1C Brown soils; chiefly burn-out types; subject to more frequent droughts than 1A.
- 2A Dark brown soils; subject to occasional droughts; better moisture conditions than 1A.
- 2B Dark brown soils; slightly cooler than 2A.
- 2C Dark brown soils, bench land; cooler, shorter frost-free season and better moisture conditions than 1A.
- 2D Dark brown soils; higher elevation and distinctly shorter frost-free season than 2B.
- 2E Dark brown heavy clay soils; more drought resistance than 2A and 2B.
- 2F Brown and dark brown heavy clay soils; more drought resistance than 1A and adjoining 2B.
- 3A Black soils; better moisture conditions than 2A.
- 3B Deep black and degraded black soils; shorter frost-free period and better moisture conditions than 3A.
- 3C Black soils; better moisture conditions than 2B, and cooler than 3A and 3G.



A view of the test conducted by Mike Klotz of Denzil

3D Deep black soils; better moisture conditions than 3E.

- 3E Black soils; shorter frost-free season and better moisture conditions than 2D.
- 3F Degraded black and some grey soils; shorter frost-free period than 3D.
- 3G Black soils, medium to light textured, more droughty than 3E.
- 3H Degraded black soils; distinctly short frost-free season.
- 4A Grey and strongly degraded black soils; short frost-free season.
- 4B Grey soils; distinctly short frost-free season; better moisture conditions than 3E.

Note. -- The above descriptions are based on information contained in the "Guide to Farm Practice in Saskatchewan, 1948."

#### RAINFALL

As the amount of rainfall during the growing season has a greater influence upon the yields than the amount of annual precipitation, the rainfall shown in the following table covers only the months representing the growing period of wheat in Saskatchewan.

TABLE NO. 1.—AVERAGE MONTHLY PRECIPITATION DURING THE PERIOD MAY-AUGUST

SUMMARIZED	BY	CEREAL	VARIETY	ZONES

Cereal Variety Zone	Number	May	June	July	August	Total
1A	38	.79	2.97	2.41	1.71	7.88
1B, 1C, and 2C	8	.39	2.41	2.82	1.41	7.03
2A	10	1.25	4.25	3.12	1.76	10.38
2B	29	1.14	1.78	2.55	1.22	6.69
2D	8	.57	2.07	3.06	.86	6.56
2E and 2F	11	1.57	2.12	2.99	1.25	7.93
3A	14	1.40	3.55	3.85	2.39	11.19
3B	25	.74	2.26	3.95	1.71	8.66
3C	27	1.20	2.19	3.43	1.26	8.08
3D and 3F	7	.87	1.72	3.85	2.00	8.44
3E	12	.49	3.95	3.32	1.28	9.04
3G	12	.43	3.30	3.52	1.27	8.52
4A	10	1.18	1.79	3.63	1.66	8.26
4B	8	.59	3.14	2.65	.81	7.19

Note. The above table was compiled from monthly rainfall records kept by test supervisors. Each supervisor was supplied with a rain gauge and one of his duties was to keep a monthly precipitation record.

# WHEAT TESTS

The wheat project consisted of 191 individual tests. These were distributed throughout the entire grain growing area of the province, and it is felt that the results of the project represent accurately the ability of each variety on the various types of soil, and under the climatic conditions which existed during the growing season. Four of the new, promising varieties were selected for testing, using Thatcher as the standard for comparison. Not all of the varieties were tested in each area. Thatcher, Redman and Lee were used in all zones, but each of the other varieties was used in the general area where it could reasonably be expected to give best results when grown commercially. The sawfly-resistant variety, Rescue, was the fourth variety used in tests in the open plains area\* (Cereal Variety Zones 1A to 2F, inclusive). Saunders was the fourth variety included in tests in the black and grey soils of the park belt and wooded districts. (Cereal Variety Zones 3A to 4B inclusive.)

#### DESCRIPTION OF VARIETIES

Thatcher was produced from a cross made in 1921 at the Minnesota Agricultural Experiment Station, St. Paul, between (Marquis X Iumillo) X (Marquis X Kanred). From one of the original crosses (Marquis X Iumillo), a bread wheat type was obtained with a considerable degree of resistance to stem rust under field conditions. From the Marquis X Kanred cross, a spring wheat was selected of good milling and baking quality that was immune to several forms of stem rust and had high yielding ability. Thatcher originated from a cross between these two. Thatcher is highly resistant to shattering and spring frost damage. It is resistant to most forms of stem rust and to loose smut, but is susceptible to leaf rust and covered smut. Thatcher is moderately resistant to common rootrot.

**Lee** (**CT-509**) is a moderately early maturing, bearded bread wheat variety developed at the University of Minnesota from a cross made between Hope x Timstein. Timstein is from the cross Tricticum Timopheevi x Steinwedel and is of value to plant breeders

<sup>\*</sup>See Cereal Variety Zone Map, page 33.

only. Lee is resistant to all common races of stem rust excepting the new race 15B. It is highly resistant to leaf rust, susceptible to bunt, moderately resistant to loose smut and moderately susceptible to rootrot.

**Redman** is the result of a cross between Regent and Canus made in 1934 by the Cereal Division staff at the Dominion Laboratory of Cereal Breeding, Winnipeg, Manitoba. Canus was developed from a cross between Marquis and Kanred. Redman is resistant to stem rust and covered smut, moderately resistant to loose smut, and moderately susceptible to rootrot. Although resistant to some races of leaf rust, Redman is susceptible to those prevailing at the present time. It is resistant to shattering and moderately susceptible to spring frost damage. A new strain was used in these tests.

Rescue originated from a cross made at the Cereal Division, Central Experimental Farm, Ottawa, between Apex and S-615. The resultant population was transferred to the Dominion Experimental Station at Swift Current for exploitation. Here plant breeders, in co-operation with the Division of Entomology, Science Service, produced Rescue. It is the first bread wheat variety to be introduced which is capable of resisting attacks of the wheat stem sawfly to a high degree. Rescue is resistant to stem rust, moderately susceptible to common rootrot and susceptible to covered smut, loose smut and leaf rust. It is slightly less resistant than Thatcher to shattering and is susceptible to spring frost damage. A new strain designated Rescue 103 was used in these tests.

**Saunders** is an early maturing variety which originated from a cross made at the Central Experimental Farm, Ottawa, in 1938, between an early ripening hybrid (Hope X Reward) and Thatcher. Saunders is resistant to stem rust and loose smut. It is moderately resistant to rootrot but susceptible to leaf rust and moderately susceptible to covered smut. Saunders has been licensed and is eligible for the highest grades.

TABLE NO. 2.—AVERAGE YIELDS IN BUSHELS PER ACRE SUMMARIZED BY CEREAL VARIETY ZONES OR GROUPED ZONES

Cereal Variety Zone	No. of Satisfactory Tests	Thatcher	Lee	Redman	Rescue	Saunders	Necessary Difference* in Bushels
1A	. 34	22.4	19.0	20.2	19.4		0.9
1B, 1C, and 2C.	. 8	12.3	9.6	11.0	9.9		1.1
2A		23.7	24.0	23.3	22.0		2.0
2B	. 22	17.8	15.1	16.5	15.9		0.9
2D		20.7	16.0	19.2	18.1		2.7
2E and 2F	. 7	27.4	22.7	24.3	26.5		2.4
3A		16.2	21.0	19.4		14.5	1.7
3B	. 13	28.2	27.4	28.3		27.3	2.1
3C	. 19	21.4	20.9	21.9		20.8	1.3
3D and 3F	6	30.9	25.6	28.7		26.8	2.6
3E		28.1	24.4	27.9		29.3	2.4
3G	6	31.1	25.7	28.8		29.6	1 7
4A		33.9	31.0	32.9		32.6	2.8
4B		23.0	19.3	21.1		21.5	2.0

\*Necessary Difference—Since yielding ability of varieties cannot be measured with absolute accuracy, small differences have no significance. Unless the difference in yield of two varieties is greater than the necessary difference as shown in the tables, little confidence can be placed in the superiority of one variety over the other in that particular zone group.

Table No. 2. Zones 1A to 2F. **Thatcher** was high in yield in every zone except 2A, where it placed second to Lee by a narrow margin. **Redman** was second in yield in four zones, but placed third in Zone 2A, and 2E and 2F. On an average basis **Rescue** was third in yield, but in Zones 2E and 2F, it ranked second, and in Zone 2A it placed fourth. **Lee** gave a comparatively poor performance throughout this region yielding fourth in every zone except 2A. It is of interest to note that Zone 2A lies in the southeast where resistance to leaf rust is sometimes of considerable importance in the choice of a variety. Lee appears to be more resistant to this disease than any of the varieties now in general use throughout Saskatchewan.

Zones 3A to 4B. Taking the area as a whole **Thatcher** was superior in yield. It outyielded the other varieties in four regions, and placed second in three. Thatcher gave its poorest performance in Zone 3A where it ranked third. **Redman** placed second on an average basis. It outyielded the other varieties in Zones 3B, and 3C; placed second in 3A, 3D and 3F, and 4A; and ranked third in the remaining zones. **Saunders** and **Lee** were approximately equal on an average basis. In most zones these varieties were third and fourth in yield. One notable exception, however, was Zone 3A, where Lee outyielded Thatcher and Saunders by more than the necessary difference. In this south-easterly zone (See location on map, page 33) Lee gave its best performance probably because of its leaf rust resistance. As stated above, Lee also gave a good performance in Zone 2A

which adjoins 3A on the west side. Lee made a poor showing in the northerly Zones 3D and 3F, 3E, 3G, 4A, and 4B. **Saunders** outyielded all other varieties in Zone 3E; placed second in 3G and 4B; third in 3D and 3F, and 4A; and fourth in 3A, 3B, and 3C.

TABLE NO. 3.—AVERAGE NUMBER DAYS FROM SOWING TO RIPENING SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Lee	Redman	Rescue	Saunders
1A	105.2	106.0	106.0	105.2	
1B, 1C, and 2C	98.5	100.5	96.5	97.5	
2A	105.7	106.6	105.9	106.1	100
2B	97.1	98.1	97.0	97.6	
2D					
2E and 2F	104.0	106.0	103.0	104.2	
3A	105.8	108.8	104.0		104.8
3B	105.6	106.6	104.5	-	104.1
3C	104.4	104.3	104.0		103.9
3D and 3F	110.0	112.5	109.2		108.2
3E	105.2	106.0	104.2		104.2
3G	100.7	101.2	101.0		101.0
4A	104.0	106.0	102.0		102.0
4B	98.0	94.0	92.0		97.0

Table No. 3. The severe frosts which occurred in August made it extremely difficult to determine accurately the ripening period for the different varieties. In many cases Junior Co-operators were not able to complete this section of their reports due to the unusual conditions which prevailed. On the basis of reports which were received, however, it appears that **Redman** and **Thatcher** were first to mature in the area comprised by Cereal Variety Zones 1A to 2F. **Rescue** generally ranked third and **Lee** was fourth.

Zones 3A to 4B. Generally throughout this area **Saunders** ripened first with **Redman** following closely. **Thatcher** placed third, and again **Lee** was latest in ripening.

TABLE NO. 4—AVERAGE HEIGHT OF PLANTS IN INCHES SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Lee	Redman	Rescue	Saunders
1A	28.3	27.0	28.5	29.7	
1B, 1C, and 2C	26.5	25.0	26.3	27.0	
2A	34.2	32.5	34.0	35.9	
2B	25.8	24.6	25.5	26.6	
2D	25.0	23.5	25.0	23.0	-
2E and 2F	37.0	37.7	34.0	38.2	-
3A	38.0	40.2	39.2		38.5
3B	35.7	35.4	36.2		33.9
3C	32.2	31.2	32.0		30.9
3D and 3F	40.2	38.0	40.0		39.5
3E	33.8	32.4	35.0		33.6
3G	32.0	32.8	33.6		32.4
4A	37.0	35.3	36.3		37.0
4B	34.0	32.0	33.7		31.7

Table No. 4. Zones 1A to 2F. **Rescue** was taller than the other varieties in every zone except 2D. On a general average basis **Thatcher** placed second, **Redman** third, and **Lee** fourth.

Zones 3A to 4B. Taking the area as a whole **Redman** was slightly taller than the other varieties. **Thatcher** placed second. **Lee** was third in height on an average basis, exceeding **Saunders** by a narrow margin.

TABLE NO. 5.—AVERAGE STRAW STRENGTH OF PLANTS ON THE BASIS 10 (STRONG)—0 (WEAK) SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Lee	Redman	Rescue	Saunders
1A	8.1	8.2	8.3	8.9	
1B, 1C, and 2C	8.8	8.3	8.6	8.6	
2A	8.6	7.1	8.3	7.6	
2B	8.7	8.8	8.7	8.7	-
2D.	8.3	7.2	7.7	8.7	
2E and 2F	9.0	8.3	8.7	8.7	
3A	8.8	7.2	9.1		8.7
3B	7.8	7.2	7.8		7.5
3C	9.0	8.3	8.4	-	8.4
3D and 3F	7.7	5.7	7.5		7.5
3E	9.2	8.4	9.6		9.3
3G	8.9	9.2	9.0	-	8.7
4 A	9.3	8.4	8.7		7.8
4R	9.2	8 8	9.0		8.7

Table No. 5. Zones 1A to 2F. A general average indicates that **Thatcher** had the strongest straw, followed by **Rescue**, **Redman** and **Lee** in that order.

Zones 3A to 4B. In this region, **Thatcher** straw again had slightly greater strength on an average basis. It was followed closely by **Redman**, with **Saunders** third and **Lee** fourth.

TABLE NO. 6.—AVERAGE WEIGHT PER MEASURED BUSHEL SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Thatcher	Lee	Redman	Rescue	Saunders
1A	59.8	59.3	58.9	60.6	
1B, 1C, and 2C	57.0	55.8	55.0	57.4	
2A	57.1	56.0	55.8	56.9	
2B	60.3	59.5	59.7	60.4	-
2D	57.6	56.2	58.0	59.0	
2E and 2F	59.8	58.6	59.0	60.6	
3A	54.4	55.4	55.1		54.4
3B	58.7	57.5	58.4		58.5
3C	58.6	57.2	58.2		59.0
3D and 3F	58.7	57.0	59.1		59.0
3E	57.2	55.7	57.0		58.5
3G	60.0	58.4	59.4		60.4
4A	56.6	54.8	56.8		57.2
4B	58.0	57.5	57.3		58.2

Table No. 6. Zones 1A to 2F. **Rescue** excelled in weight per measured bushel in every zone except 2A. **Thatcher** ranked second, except in Zone 2A where it exceeded **Rescue**, and 2D where it placed third. In most cases, **Lee** and **Redman** placed third and fourth with little difference between these two varieties on an average basis.

Zones 3A to 4B. **Saunders** generally produced the highest bushel weight in these zones followed closely by **Thatcher** and **Redman**. **Lee** excelled in bushel weight in Zone 3A, where it also showed superiority in yield, but in every other zone except 4B it placed fourth.

TABLE NO. 7.—PERCENTAGE OF COMMERCIAL GRADES BY VARIETIES (ZONES 1A to 2F)

Variety	1°	2°	3°	4°	No. 5	No. 6	Feed
	%	%	%	%	%	%	%
Thatcher	6.9	14.9	23.1	16.1	19.5	12.6	6.9
Lee	5.7	11.5	20.7	12.7	20.7	13.8	14.9
Redman	1.1	8.0	28.7	19.5	19.5	11.6	11.6
Rescue	9.2	18.4	21.8	13.8	18.4	11.5	6.9

TABLE NO. 8.—PERCENTAGE OF COMMERCIAL GRADES BY VARIETIES (ZONES 3A to 4B)

Variety	1°	2°	3°	4°	No. 5	No. 6	Feed
	%	%	%	%	%	%	%
ThatcherLee	1.3	2.7	12.0 8.1	14.7	30.6	22.7 30.6	16.0 29.3
RedmanSaunders.	1.3	1.3	13.3 14.7	14.7 20.0	33.3 36.0	22.7 12.0	14.7

The above tables give a comparison of the grading ability of the varieties in the two main zone groups. Due to frost damage the percentage of samples in the top grades was much lower during the past year than in a normal season.

Table No. 7. Zones 1A to 2F. Differences in grading ability were of a minor nature but **Rescue**, with 49.4 percent of the samples grading 3 Northern or better, was slightly superior to the other varieties. The comparative figure for **Thatcher** was 44.9 percent, while **Lee** and **Redman** were practically equal with 37.9 percent and 37.8 percent of the samples placing in the three top grades.

Table No. 8. Zones 3A to 4B. With 18.7 percent of its samples in the top three grades **Saunders** held a slight advantage over **Thatcher** and **Redman** in this zone group. **Lee** was fourth in grading ability.

Generally the differences between varieties were not of major importance. Due to the severe frosts of the past season, the test grades are unusually poor, and should not be considered a reliable indication of the comparative quality of the varieties.

#### SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

In comparing the performances of the varieties in a particular district, it is advisable to study, not only the results of the individual test in that district but also the average results of all tests conducted under similar conditions of soil and climate. Accordingly, the following section of the booklet has been prepared showing the average results of all tests within each cereal variety zone. The cereal variety zones are illustrated on page 33 and described in the "Analysis of Data" on page 8. Each zone represents an area within which the soil and climate is generally similar and throughout which, under normal growing conditions, a variety may generally be expected to give similar results. It should be kept in mind, however, that some variation is likely to occur in growing conditions at different points in a zone during every season. For that reason the average results of tests for a zone may not be representative of the entire area. In addition, the performance of a variety may show considerable variation under the differing growing conditions that will exist within a zone from year to year. Therefore, the results of one year's tests with a variety should not, under any circumstances, be considered a sound basis on which to judge the ability of the variety.

By turning to the Cereal Variety Zone map on page 33, the reader may determine the designation of the zone in which he is interested. Then, by locating the summary for that zone in the following pages, he may ascertain the average results of all tests carried out. In some cases, due to an insufficient number of tests in a zone, the tests from two similar zones have been grouped together for analysis.

TABLE NO. 9.—SUMMARIZED RESULTS FOR ZONE 1A (34 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		22.4	19.0	20.2	19.4
Days from seeding to ripening		105.2	106.0	106.0	105.2
Height of plants in inches		28.3	27.0	28.5	29.7
Straw strength (maximum of 10)		8.1	8.2	8.3	8.9
Bushel weight in pounds		59.8	59.3	58.9	60.6
Commercial grades in percentage:	1 Nor	5.9	8.8		8.8
	2 Nor	23.5	14.7	8.8	8.8
	3 Nor	38.2	29.5	47.1	29.5
	4 Nor		14.7	14.7	8.8
	No. 5		17.6	14.7	14.7
	No. 6		8.8	5.9	14.7
	Feed	5.9	5.9	8.8	2.8

Necessary difference-.9 bushel.

## Yield Performance During Recent Years—Zone 1A

**Thatcher** has been the leading variety in this zone for a number of years and its outstanding performance again in 1950 indicates that it is still an excellent choice. On the basis of results from 34 tests during the past season it outyielded all other varieties significantly. Over the past five-year period Thatcher has outyielded all other varieties three times, ranked second to Stewart durum in 1948 and placed fourth in 1947.

**Redman** placed second during 1950, outyielding Lee by more than the difference necessary for significance. Its favorable performance may have been the result of better-than-usual moisture conditions in the zone, but in any case Redman should not be considered for general use in this area. It has been used only once before in tests in this zone. That was in 1947 when it placed third out of four varieties in yield.



Left to right: Lorne Hufnagel, Sunset Lake; Alan Wolfe, Imperial; Mike Klotz, Denzil.

**Resoue** ranked third during 1950, yielding three bushels per acre less than Thatcher. In former years, however, Rescue has yielded almost as much as Thatcher in these tests, and it is officially recommended where sawflies are a threat.

Lee was tested for the first time in 1950. It ranked fourth in yield, and while further tests are necessary before recommendations are made, it does not appear that Lee will prove suitable for commercial production in this area.

TABLE NO. 10.—SUMMARIZED RESULTS FOR ZONE GROUP 1B, 1C, AND 2C (8 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		12.3	9.6	11.0	9.9
Days from seeding to ripening		98.5	100.5	96.5	9.9
Height of plants in inches		26.5	25.0	26.3	27.0
Straw strength (maximum of 10)		8.8	8.3	8.6	8.6 57.4
Bushel weight in pounds		57.0	55.8	55.0	57.4
Commercial grades in percentage:	1 Nor.	12.5			12.5 12.5 12.5
	2 Nor	12.5	12.5	12.5	12.5
	3 Nor		12.5		12.5
	4 Nor	25.0		50.0	12.5
	No. 5	25.0	25.0	50.0	25.0
	No. 6	25.0	25.0	25.0	25.0
	Feed	12.5	25.0	12.5	12.5

Necessary difference-1.1 bushels.

## Yield Performance During Recent Years-Zone Group 1B, 1C and 2C

The results shown above were obtained from five tests in Zone 1B, two in 1C, and one in 2C which were grouped together for analysis. Results of each of these eight tests appeared similar and as climatic conditions did not warrant a separate analysis it was considered advisable to place them in one group.

**Thatcher** significantly outyielded the other varieties in the 1950 tests. In similar tests with four varieties during the past five years, Thatcher has always ranked first or second in yield in these zones, and is highly recommended.

**Redman** placed second in yield in 1950, exceeding Rescue by an amount equal to the necessary difference. Redman was tested in this area in 1946, and was low in yield at that time. While Redman might do well again under conditions similar to those which existed in 1950, it has no characteristics of special importance for this area, and is not recommended.

**Rescue** placed third in yield in 1950. In 1946 it outyielded all other varieties, and in 1947 it was slightly outyielded by Thatcher. Although Rescue gave a comparatively poor performance in 1950, its past record and sawfly resistant characteristics are features worthy of consideration in these south-westerly zones.

Lee was low in yield in 1950, the first year it was included in Wheat Pool tests.

TABLE NO. 11.—SUMMARIZED RESULTS FOR ZONE 2A (9 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		23.7	24.0	23.3	22.0
Days from seeding to ripening		105.7	106.6	105.9	106.1
Height of plants in inches		34.2	32.5	34.0	35.9
Straw strength (maximum of 10)		8.6	7.1	8.3	7.6
Bushel weight in pounds		57.1	56.0	8.3 55.8	7.6 56.9
field in bushels per acre Days from seeding to ripening leight of plants in inches traw strength (maximum of 10) bushel weight in pounds Commercial grades in percentage:	1 Nor	10.0			10.0
	2 Nor		10.0	10.0	20.0
	3 Nor.	10.0	20.0	10.0	20.0
	4 Nor.	20.0	10.0	20.0	10.0
	No. 5	20.0	10.0	10.0	10.0
	No. 6.	20.0	10.0	10.0	20.0
	Feed	20.0	40.0	40.0	30.0

Necessary difference-2.0 bushels.

#### Yield Performance During Recent Years—Zone 2A

Lee was high in yield in 1950, exceeding Rescue by a difference equal to the necessary difference for the zone. Its yield advantage over Thatcher and Redman was not significant. Due to its high resistance to leaf rust, Lee may prove suitable for use in this south-easterly zone. As it has only been tested for one season, however, there is insufficient evidence as yet on which to base a recommendation.

**Thatcher** placed second in yield in 1950. In past years it has equalled or exceeded the other bread wheat varieties in tests in Zone 2A, and is highly recommended.

**Redman** placed third in yield in 1950. It proved lowest in yield of four varieties when tested previously in this area in 1946. On the basis of these results Redman does not appear suitable for general use in the zone.

**Rescue** has been tested four times in Zone 2A, and was low yielder on three occasions. It placed third in 1946. Rescue has not compared favorably with Thatcher in this area and is not officially recommended.

TABLE NO. 12.—SUMMARIZED RESULTS FOR ZONE 2B (22 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		17.9	15.1	16.5	15.9
Days from seeding to ripening		97.1	98.1	97.0	97.6
Height of plants in inches		25.8	24.6	25.5	26.6
Straw strength (maximum of 10)		8.7	8.8	8.7	8.7
Bushel weight in pounds			59.5	59.7	60.4
Commercial grades in percentage:	1 Nor	13.6	9.1	4.5	18.2
	2 Nor	4.6	13.6	9.1	9.1
eld in bushels per acre ays from seeding to ripening eight of plants in inches raw strength (maximum of 10). ishel weight in pounds ommercial grades in percentage:	3 Nor	27.3	9.1	22.7	22.7
	4 Nor		13.6	27.3	18.2
	No. 5	22.7	31.9	18.2	22.7
	No. 6	13.6	13.6	18.2	9.1
	Feed		9.1		

Necessary difference-.9 bushel.

#### Yield Performance During Recent Years—Zone 2B

In yield tests during the past five years **Thatcher** has exceeded or equalled all other bread wheat varieties consistently in Zone 2B. The results of tests during 1950, when Thatcher significantly outyielded the other varieties, place it once again at the top of the recommended list.

**Redman** ranked second in yield in 1950. It was outyielded significantly by Thatcher. Redman was used in these tests previously in 1946, and placed second to Thatcher also at that time. As it has no outstanding features suitable to this area, Redman is not officially recommended.

**Rescue** was third in yield in 1950. It has been included in tests in Zone 2B four times during the past five years, and has placed third or fourth out of four varieties each time. Because of the sawfly problem in this area, however, Rescue is now recommended for use in controlling these pests.

Lee was low in yield in 1950, the first year during which it was used in Wheat Pool tests.

TABLE NO. 13.—SUMMARIZED RESULTS FOR ZONE 2D (5 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		20.7	16.0	19.2	18.1
Days from seeding to ripening		25.0 8.3 57.6	23.5 7.2 56.2	25.0 7.7 58.0	23.0 8.7 59.0
	1 Nor. 2 Nor. 3 Nor. 4 Nor.	16.7 33.2	16.7 16.7	16.7 33.2	16.7 16.7 16.7
	No. 5 No. 6 Feed	16.7 16.7 16.7	16.7 16.7 33.2	7.7 58.0 ————————————————————————————————————	33.2 16.7

Necessary difference-2.7 bushels.

#### Yield Performance During Recent Years—Zone 2D

During 1950, **Thatcher** outyielded all other varieties in Zone 2D. With the exception of 1949 when it proved inferior to **Apex** 2177, Thatcher has yielded more than the bread wheats consistently in this zone during recent years. It is recommended, along with the new Apex 2177, for commercial production in this area.

**Redman** was second, outyielding Lee by a significant margin. In tests in this zone during 1946, Redman tied with Rescue for last place in yield. As Redman is inferior to the leading varieties in yield, and has no other outstanding characteristics of importance in this area, it is not officially recommended.

Rescue placed third in yield in 1950. It has been tested in this zone during four years and has generally failed to outyield Thatcher on an average basis. Its resistance

to sawflies is an important feature, however, and it is recommended for sawfly control purposes.

Lee placed fourth in yield in 1950, the first year it was included in Wheat Pool tests. Recommendations regarding this variety will not be made until further tests are carried out.

TABLE NO. 14.—SUMMARIZED RESULTS FOR ZONE GROUP 2E AND 2F (7 satisfactory tests)

		Thatcher	Lee	Redman	Rescue
Yield in bushels per acre		27.4	22.7	24.3	26.5
Days from seeding to ripening		104.0	106.0	103.0	104.2
Height of plants in inches		37.0	37.7	34.0	38.2
Straw strength (maximum of 10)		9.0	8.3	8.7	8.7
Bushel weight in pounds		59.8	58.6	59.0	60.6
ushel weight in pounds Commercial grades in percentage:	1 Nor				
	2 Nor	28.6			28.6
eight of plants in inches raw strength (maximum of 10) ushel weight in pounds	3 Nor		28.6	28.6	28.6
	4 Nor	28.6	14.3	28.6	28.6
	No. 5	28.6	14.3	28.6	42.8
	No. 6	14.2	28.6		42.8
	Feed		14.2	14.2	

Necessary difference-2.4 bushels.

# Yield Performance During Recent Years—Zone Group 2E and 2F

With the exception of 1949 when it placed fourth out of four varieties, **Thatcher** has shown general yield superiority over other bread wheat varieties tested in these zones. This superiority was particularly evident in 1950 when Thatcher outyielded all varieties except Rescue by a significant margin.

**Rescue** has seldom yielded as well as Thatcher in this area. In four years of tests since 1946, Rescue has been lower in yield that the standard variety each time. It is officially recommended for sawfly control purposes in Zone 2F but is not recommended under any circumstance in Zone 2E.

**Redman** placed third in yield in 1950, but ranked second to Thatcher when used in Wheat Pool tests previously in 1946. It is not recommended in Zone 2F, but is considered suitable for use in Zone 2E.

Lee was outyielded by all other varieties in 1950, the first year it was included in the testing project.

TABLE NO. 15.—SUMMARIZED RESULTS FOR ZONE 3A (7 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		16.2	21.0	19.4	14.5
Days from seeding to ripening		105.8	108.8	104.0	104.8
Height of plants in inches		38.0	40.2	39.2	38.5
Straw strength (maximum of 10)		8.8	7.2	9.1	38.5 8.7 54.4
Bushel weight in pounds			55.4	55.1	54.4
Commercial grades in percentage:	1 Nor.				37.5
	2 Nor		-		
	3 Nor		12.5	25.0	37.5
	4 Nor	12.5	12.5		
	No. 5	12.5	25.0	25.0	25.0
	No. 6	12.5		25.0	25.0 12.5
	Feed	37.5	50.0	25.0	25.0

Necessary difference-1.7 bushels.

# Yield Performance During Recent Years—Zone 3A

It is interesting to note that in 1950 **Lee** gave outstanding yield results in this zone while in most areas it proved inferior to the other varieties. Lee is more resistant to leaf rust than any of the other varieties commonly in use and this feature is important in Zone 3A. On the basis of tests carried out during 1950, the variety has shown itself to be adapted to the conditions which prevailed in the south-eastern part of Saskatchewan. This is emphasized by the fact that in Zone 2A also, Lee gave satisfactory results. It should be stressed, however, that a one-year period is too short to test a variety fully, and until further tests are carried out an accurate appraisal of the variety cannot be made.

**Redman** has outyielded Thatcher during three of the four years it has been tested by the Wheat Pool in this zone. In most cases the yield differences have not been large. Redman is a good choice for use in Zone 3A, although it is susceptible to many of the races of leaf rust which now prevail in Saskatchewan.

**Thatcher** placed third in yield in 1950, but its past performance generally throughout the zone has been excellent. It is officially recommended for this area.

**Saunders** has been included in Wheat Pool tests during each of the past four years. It has been outyielded by all other varieties on every occasion. Saunders is not recommended for this area.

TABLE NO. 16.—SUMMARIZED RESULTS FOR ZONE 3B (13 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		28.2	27.4	28.3	27.3
Days from seeding to ripening		105.6	106.6	104.5	104.1
Height of plants in inches		35.7	35.4	36.2	33.9
Straw strength (maximum of 10)		7.8	7.2	7.8	7.5
Bushel weight in pounds		58.7	57.5	58.4	58 5
Commercial grades in percentage:	1 Nor				6.7
Commercial grades in percentage.	2 Nor			6.7	6.7
	3 Nor	6.7	13.3	6.7	6.7
	4 Nor	20.0	6.7	20.0	26.6
	No. 5	40.0	26.7	40.0	46.6
	No. 6.	20.0	33.3	26.6	6.7
	Feed	6.6	20.0		6.7

Necessary difference-2.1 bushels.

## Yield Performance During Recent Years-Zone 3B

**Redman** and **Thatcher** were practically equal in yield in this zone during 1950. Although yield differences between these varieties in Zone 3B have never been large, Thatcher has a slight edge over Redman when all tests for the past five years are considered. Both varieties are officially recommended for use in the area.

Lee placed third in yield in 1950. This was the first year in which it was tested and recommendations regarding the variety will not be made until further information is available.

**Saunders** has been tested during each of the past four years, and has been outyielded by all other varieties each time. It is not recommended for use in Zone 3B.

TABLE NO. 17.—SUMMARIZED RESULTS FOR ZONE 3C (19 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		21.4	20.9	21.9	20.8
Days from seeding to ripening		104.4	104.3	104.0	103.9
Height of plants in inches		32.2	31.2	32.0	30.9
Straw strength (maximum of 10)		9.0	8.3	8.4	8.4
Bushel weight in pounds		58.6	57.2	58.2	59.0
Commercial grades in percentage:	1 Nor				
	2 Nor	4.8			4.8
	3 Nor	14.3	4.8	9.5	14.3
	4 Nor	14.3	9.5	23.8	28.6
	No. 5	33.3	28.6	38.1	33.3
	No. 6	23.8	33.3	19.1	9.5
	Feed.	9.5	23.8	9.5	9.5

Necessary difference-1.3 bushels.



David Salmond of Weekes and his variety test.

## Yield Performance During Recent Years—Zone 3C

**Redman** and **Thatcher** were practically equal in yielding ability in Zone 3C. Results of tests over the past five years show that little difference in yield exists between the two varieties although Thatcher has a slight edge on an average basis. Both varieties are officially recommended for use in the zone.

Lee and Saunders again shared third and fourth places. Lee was tested for the first time in 1950 and recommendations regarding this variety will not be made until further tests are carried out.

**Saunders** has been tested during each of the past four years and has been inferior in yield each time. It is not officially recommended for use in this zone.

TABLE NO. 18.—SUMMARIZED RESULTS FOR ZONE GROUP 3D AND 3F (6 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		30.9	25.6	28.7	26.8
Days from seeding to ripening		110.0	112.5	109.2	108.2
Height of plants in inches		40.2	38.0	40.0	39.5
Straw strength (maximum of 10)		7.7	5.7	7.5	7.5
Bushel weight in pounds		58.7	57.0	59.1	59.0
Commercial grades in percentage:	1 Nor				
Commercial Branco III Percentage.	2 Nor				14.3
	3 Nor	28.6	14.3	28.6	14.3
	4 Nor		14.3		
	No. 5	28.6		28.6	42.8
	No. 6	28.6	42.8	28.6	14.3
	Feed	14.2	28.6	14.2	14.3

Necessary difference—2.6 bushels.

#### Yield Performance During Recent Years-Zone Group 3D and 3F

Only one satisfactory test was conducted in Zone 3D and this was grouped for analysis with five tests in Zone 3F. While the single test in Zone 3D produced similar results to those in Zone 3F, it should be borne in mind that this test is not necessarily representative of the entire zone.

**Thatcher** outyielded the other varieties, the differences being significant in the case of Saunders and Lee. The superiority of Thatcher is shown by the results of tests over the past five-year period. It has outyielded Redman and Saunders regularly on a zone average basis, and has held a definite yield advantage over other varieties tested during the past ten years. Thatcher is officially recommended for use in Zones 3D and 3F.

**Redman** placed second to Thatcher in yield during 1950. In previous Wheat Pool tests in these zones it has usually produced lower yields than any other variety except Saunders. It is officially recommended, however, for use in Zone 3D, but not for Zone 3F.

**Saunders** placed third in yield during 1950, outyielding Lee by a small margin. In tests during two years previously Saunders was outyielded by all other varieties. It is not officially recommended for this area.

Lee was low in yield during 1950, the first year it was included in Wheat Pool tests.

TABLE NO. 19.—SUMMARIZED RESULTS FOR ZONE 3E
(6 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		28.1	24.4	27.9	29.3
Days from seeding to ripening		105.2	106.0	104.2	104.2
Height of plants in inches		33.8	32.4	35.0	33.6
Straw strength (maximum of 10)		9.2	8.4	9.6	9.3
Bushel weight in pounds		57.2	55.7	57.0	58.5
Commercial grades in percentage:	1 Nor				
Commercial grades in personnage.	2 Nor				
	3 Nor			16.7	16.7
	4 Nor	33.3		16.7	16.7
	No. 5		33.3		33.3
	No. 6	33.3		16.7	
	Feed	33.4	66.7	49.9	33.3

Necessary difference-2.4 bushels.

## Yield Performance During Recent Years—Zone 3E

**Saunders** outyielded the other varieties in Zone 3E during 1950. Only in the case of Lee, however, was the yield advantage of a significant nature. Saunders was tested during three years previously. On one occasion it tied with Redman for second place.

In each of the other years it was outyielded by all other varieties. Although it is apparently more suitable for use in this area than in most other regions of the province, the performance of Saunders over the past four year period has not been equal to that of Thatcher or Redman, and it is not recommended for use in the zone.

**Thatcher** placed second during 1950, maintaining a record of excellent yielding ability in the zone. Since 1940, in Wheat Pool tests in Zone 3E, Thatcher has never been lower than second place in yield. In most cases it ranked first. The variety is highly recommended for use in this area.

**Redman** has never equalled Thatcher in yield in Wheat Pool tests in this zone but it has usually been close to the standard variety. It is officially recommended.

Lee was outyielded by all varieties in 1950, but further tests will be necessary to determine whether or not it will be useful under Saskatchewan conditions.

TABLE NO. 20.—SUMMARIZED RESULTS FOR ZONE 3G
(6 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		31.1	25.7	28.8	29.6
Days from seeding to ripening		100.7	101.2	101.0	101.0
Height of plants in inches		32.0	32.8	33.6	32.4
Straw strength (maximum of 10)		8.9	9.2	9.0	8.7
Bushel weight in pounds		60.0	58.4	59.4	60.4
Commercial grades in percentage:	1 Nor				
	2 Nor				
	3 Nor	14.3		14.3	14.3
	4 Nor	14.3	28.6	14.3	42.8
	No. 5	42.8	14.3	57.1	28.6
	No. 6.	28.6	42.8	14.3	14.3
	Feed		14.3	2.100	

Necessary difference-1.7 bushels.

## Yield Performance During Recent Years—Zone 3G

Because the number of satisfactory tests in Zone 3G in previous years has never been sufficient for an individual zone analysis, tests in this zone have usually been grouped with those in Zones 3E or 4B. The 1950 season was the first in which Zone 3G has been dealt with as an individual unit.

On this basis **Thatcher** outyielded all other varieties. In previous years Thatcher has shown the same superiority for the zone groups in which Zone 3G was included. It is officially recommended for use in this area.

**Saunders** placed second in yield during 1950, but its past performance in the general area has not been good enough to warrant official recommendation.

**Redman** ranked third in yield in 1950. It is not officially recommended for use in this zone.

Lee ranked fourth in yield in Zone 3G during 1950.

TABLE NO. 21.—SUMMARIZED RESULTS FOR ZONE 4A (5 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		33.9	31.0	32.9	32.6
Days from seeding to ripening		104.0	106.0	102.0	102.0
Height of plants in inches		37.0	35.3	36.3	37.0
Straw strength (maximum of 10)		9.3	8.4	8.7	7.8
Bushel weight in pounds		56.6	54.8	56.8	57.2
Commercial grades in percentage:	1 Nor				
	2 Nor				
	3 Nor				-
	4 Nor	20.0		20.0	20.0
	No. 5	20.0	40.0	40.0	20.0
	No. 6	40.0	40.0	20.0	40.0
	Feed	20.0	20.0	20.0	20.0

Necessary difference-2.8 bushels.

#### Yield Performance During Recent Years—Zone 4A

**Thatcher** has outyielded all other varieties in this zone during three of the past five years. In one year it was second to Apex 2177 and during 1949 it ranked third. In earlier years Thatcher had consistently outyielded the other varieties in this area. It is officially recommended for use in Zone 4A.

**Redman** placed second in yield in 1950. In each of the three previous years of testing, Redman placed third. It is not recommended for the zone.

**Saunders** placed third in 1950, last in 1948 and 1949, and tied for first place in Zone 4A in 1947. Although it normally matures two or three days earlier than Thatcher it is doubtful if this advantage is sufficient to offset its generally lower yielding ability. Saunders is not officially recommended.

Lee was lowest in yield in Zone 4A. It was tested by the Wheat Pool for the first time in 1950.

TABLE NO. 22.—SUMMARIZED RESULTS FOR ZONE 4B (6 satisfactory tests)

		Thatcher	Lee	Redman	Saunders
Yield in bushels per acre		23.0	19.3	21.1	21.5
Days from seeding to ripening		98.0	94.0	92.0	97.0
Height of plants in inches		34.0	32.0	33.7	31.7
Straw strength (maximum of 10)		9.2	8.8	9.0	8.7
Bushel weight in pounds		58.0	57.5	57.3	58 2
Commercial grades in percentage:					
	2 Nor	16.7			
	3 Nor		16.7	16.7	16.7
	4 Nor				
	No. 5	50.0		16.7	49.9
	No. 6.		50.0	33.3	16.7
	Feed	33.3	33.3	33.3	16.7

Necessary difference-2.0 bushels.

#### Yield Performance During Recent Years-Zone 4B

**Thatcher** has given more satisfactory yield results than any other variety in Wheat Pool tests during the past five years. In tests against Redman during four years, the latter variety outyielded Thatcher by a wide margin in 1946, but failed to equal the standard variety in any of the other three years. Thatcher is officially recommended for use in Zone 4B.

**Saunders** tied with Thatcher for first place in 1947, but during 1948 and 1949 it was outyielded by all other varieties. In 1950, it placed second, slightly ahead of Redman. Saunders is not recommended for use in this zone.

**Redman** has been tested four times during the past five years. It outyielded the other varieties in 1947 but placed third in each year since that time. It is not recommended for use in Zone 4B.

Lee was tested for the first time in 1950. It placed fourth in yield in Zone 4B.

#### INDIVIDUAL RESULTS

The results of all successful wheat tests are shown individually in Table No. 23. The tests are listed in order of Wheat Pool districts and sub-districts. The zone in which each test was analyzed is shown under the column headed "Cereal Variety Zone." Before consulting the following table the reader is advised to refer to the discussion on page 7 headed, "Facts To Be Remembered In Reading And Studying Results."



Raymond Rambow of Hodgeville and the sheaves from his variety test.

# Individual Summarized Results of All Tests—Wheat

## WHEAT POOL DISTRICT 1

Cereal Variety Zone	Dist.	Sub- Dist	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading
			ROB	ERT and MU	RRAY	GILMEF	R, CARI	EVALE			
3A	1	1	A	Thatcher Lee	12.1 20.2	_	-	8.0	58 60	No. 5	F., G., I.
				Redman	15.8		_	9.0	57	No. 5 No. 5	F., G., I. F., G., I.
Necessary diffe	erence-	-1.0 bu	ishel.	Saunders	11.1	_	-	8.2	55	No. 5	F., G., I.
				-		-					
3A	1	2	4	MELVIN A.							
3A	. 1	2	A	Thatcher	30.0	104 105	33 34	10.0	63 63	3 Nor. 4 Nor.	F., G., I.
				Redman	36.8	100	32	10.0	63	3 Nor.	F., G. F., I. F., I.
Test damaged.	Yields	not us	ed in zor	Saunders	24.4	104	32	10.0	62	3 Nor.	F., I.
							-				
2.4		-		DONALD			KBOW				
3A	. 1	3	A	Thatcher	16.6	119 118		8.0 9.0	52 53	No. 6 Feed	F., I.
				Redman	22.6	119	1	9.0	54	No. 6	F., I. F., I.
Necessary diffe	erence-	-2.5 bi	ishels.	Saunders	15.8	118	-	7.0	53	No. 6	F., I.
	-			DOWAY	- m						
2A	. 1	4	A	Thatcher	5.4	RK, HIRS	SCH		40	F 1	-
2. x		4	А	Lee	6.6	_	_	_	48 47	Feed Feed	F. F.
				Redman	8.9		-	-	50	Feed	F.
Damaged by li	vestoc	k. Yield	ds not us	Rescue sed in zone sumi	6.4 maries.	_		_	49	Feed	F.
				REGINALD V	7 TATA!	TTUTES	DDVAN	TATE	-		
2A	. 1	5	A	Thatcher		106	36	8.0	60	No 5	F.
				Lee	23.3	106	35	5.0	60	No. 5 No. 5 No. 5	F.
				Redman Rescue	21.9	108 106	38 41	7.0	59 60	No. 5 No. 5	F. F.
No significant	grain ;	vield di	fference	between varieti	es.	100	71	10.0	00	140. 5	1.
				CORRINNE	J. SW	ENSON.	MIDAL	E			
2A	. 1	6	A	Thatcher	21.4		_	9.8	55	No. 6	F., G., I.
				Lee	18.9	-	1-1-1	8.8	47	Feed	F.
				Redman Rescue	20.7 16.0	_	_	9.4	50 50	Feed Feed	F. F., I. F.
Necessary diffe	erence-	-2.0 bi	ushels.								
				PETER J. M	IcKEL	KIE, BRO	OMHEA	D	11.00		
2A	. 1	7	A	Thatcher	30.7	_	31	9.0	63	4 Nor.	I.
				Lee Redman	28.4 27.7	_	28 32	6.6	64 61	3 Nor. 4 Nor.	I. I.
NT116:			CC	Rescue	28.9	_	33	10.0	63	4 Nor.	I.
No significant	grain	rield di	fference	between varieti	es.						
				LOUIS A.		AUD, FO	RGET	T U	- 1		
2A	. 1	9	A	Thatcher	13.4	117	40	10.0	48	Feed	F., I.
				Lee Redman	22.7 19.1	117 115	37 40	10.0 10.0	48 49	Feed Feed	F., I. F., I.
Magazana 1:66		271	-al-al-	Rescue	13.5	117	42	7.4	49	Feed	F., I.
Necessary diffe	erence-	-2.7 bt	isneis.								
				ERNEST DEBU							
	. 1	9	C	Thatcher	17.1	106 109	41	6.2	54	No. 5	F., I.
2A	. 1				20.7		40	5.8 *	52	No. 6	r., G., I.
2A	. 1			Redman	16.7	107	40	6.4	49	Feed	F., I.
2A		254.	rcholo	Redman Rescue	16.7 13.8	107 107	40 44	6.4 5.0	49 52	Feed No. 6	F., G., I. F., I. F., I.

# WHEAT POOL DISTRICT 2

Cereal Variety		Sub-	Test desig-		Yield bus.	Days seed- ing to	Plant height in	Straw	Lbs. per meas- ured	Com- mercial	Grading
Zone	Dist.	Dist.	nation	Varieties	acre			strength		grades	
				ANNA E. A							
2A		1	Α	Thatcher Lee Redman Rescue	40.3 41.8 42.8	101 107 101 104	36 35 34 38	10.0 3.0 9.0 3.0	65 64 65 65	1 Nor. 2 Nor. 2 Nor. 1 Nor.	S.I. I. I. S.I.
- Significant	grain	yleid dii	-	between varieti							
1A	2	5	A	Thatcher Lee Redman	10.6 8.9 10.9	103 102 104	22 23 23	8.4 8.8 8.4	60 60 61	3 Nor. 4 Nor. 3 Nor.	F., G. F., G. F., I.
No significant	grain y	yield di	fference 1	Rescue between varieti	10.6	101	23	8.4	62	3 Nor.	F., Î.
				MELVA E.		PPT MI	CT ATTAT				
1A	2	6	A	Thatcher Lee				7.8 7.8 7.8 9.8	64 63 64 65	1 Nor. 2 Nor. 2 Nor. 1 Nor.	<u>I.</u> <u>I.</u>
No significant	grain y	yield dit	fference	between varieti							
						LIMERI					
1A		7	A	Thatcher Lee Redman Rescue	18.0 15.5 18.4 17.5	=	36 26 35 36	=	59 59 57 61	2 Nor. 2 Nor. 3 Nor. 2 Nor.	
No significant	grain y	vield dif	ference l	oetween varietie	es.						
				ALLAN J.		S, ASSIN					
1A	2	8	A	Thatcher Lee Redman Rescue	27.2 24.4 23.2 25.0	=	28 28 28 30	7.0 5.0 9.0 8.0	60 62 59 62	2 Nor. 1 Nor. 3 Nor. 1 Nor.	I. I.
Necessary diffe	rence-	-2.1 bu	shels.					/			
• •				RODNEY E. A		ILMAN, I	READL	rn	-	4 37	П. Г
1A	2	8	В	Thatcher Lee Redman Rescue	11.1 13.6 15.9	=	=	=	60 61 57 62	4 Nor. 3 Nor. 4 Nor. 4 Nor.	F., I. F., I. F., I.
Necessary diffe	rence-	-1.1 bu	shels.								,
• •				JOHN C.		ARD, OG	EMA		-		F 0 I
1A	2	9	A	Thatcher Lee Redman Rescue	9.8 10.7 10.6 8.7	=	=	=	62 61 61 63	4 Nor. No. 5 No. 5 4 Nor.	F , G., I. F., G. F.,G.,I.,S.E F., G., I.
No significant	grain y	rield dif	ference l	between varieti							
2A	2	10	A	Thatcher Lee Redman	33.2	H, KHEI 115 112 113	35 34 35 35 35	8.6 7.6 9.0 5.8	63 64 62	4 Nor. 3 Nor. 4 Nor. 3 Nor.	F., G., I. S.F., G., I. F., G., I.
No significant	grain y	rield dif	ference b	Rescue etween varietie		113	33	5.6	64	3 1401.	F., G., I.
				VERNON I.			GMAN		,		
2A	2	10	В	Thatcher Lee Redman Rescue	14.5 11.1 10.5 9.2	90 89 92 90	18 18 18 18	9.0 9.0 8.6 9.0	62 62 61 62	3 Nor. 4 Nor 3 Nor. 3 Nor.	F., Bl. F., Bl. F., Bl F., I.
Necessary diffe	rence-	-2.6 bu	shels.	2123040111111111					-		,
			,	WHEAT P	OOL	DIST	RICT	3			
14	2	1	A	GORDON I	F. COV	VIE, MAI	NKOTA		57	No 5	E C I
1A	3	1	A	Thatcher Lee Redman Rescue	18.5 15.0 15.6 14.8	=	=	=	57 58 56 58	No. 5 No. 5 No. 6 No. 5	F., G., I. F., G., I. F., G., I. F., G., I.
No significant	grain y	vield dif	ference l	between varietie	es.						

# Wheat Pool District 3—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				WITPIIP	D WIII	SON M	COPD				
	2	,	D	WILBUR I		SON, MI	CORD		40	Fred	CL
1A	3	1	В	Thatcher	9.8				49 51	Feed No. 6	Sh. Sh.
				Lee Redman	11.1			_	49	Feed	Sh.
				Rescue	7.5	_	_	_	53	No. 5	Sh.
Necessary diffe	rence-	-1.9 bu	shels.								
				P. JAC	K ORR	, BRONG	СНО		200		
1A	3	2	A	Thatcher	45.6	_	_	_	63	3 Nor.	F., I.
				Lee	35.8	-	-	_	62	3 Nor.	F., I.
				Redman		_	_	_	62	3 Nor.	F., I. F., I.
Necessary diffe	rence-	-1.8 bu	shels.	Rescue	37.7	-	-	_	63	3 Nor.	F., I.
		-10 20	-	TACTE A 1	DATTE	CON PO	MTETY			-	
1 4	3	2	В	JACK A. I	24.3	SUN, PU	24	8.0	62	2 Nor	FI
1A	3	2	В	Lee	18.3	_	24	7.2	63	3 Nor.	F. G. I.
				Redman	19.4	_	24	7.8	62	2 Nor. 3 Nor. 3 Nor.	F., G., I.
NT J:66-		201	ahala	Rescue	17.8	_	26	7.6	64	2 Nor.	F., I. F., G., I. F., G., I. F.
Necessary diffe	rence-	-2.0 bu	sneis.	-							
10	2			RODNEY	A. HY. 3.7	AM, CLA	YDON		EE	No 6	FCI
1C	3	4	A	Thatcher	2.8				55	No. 6 No. 6	F., G., I.
				Lee Redman	2.6	_	_	=	54 55	No. 6	F., G., I. F., G., I.
				Rescue	.7	_	_	_	(A)	(E) No.	6—
Necessary diffe	rence-	-0.9 bu	shel.								
				DONALD 1	E. NEE	LY, CAR	NAGH				
2C	3	6	A	Thatcher	25.3	115	38	9.0	51 52 53	Feed	F.
				Lee	19.3	123	37	9.0	52	Feed	F.
				Redman	23.9	113	37 38	9.2 9.2	53 51	No. 6	F. F. F., G. F.
Necessary diffe	rence-	-2.0 bu	shels.	Rescue	20.1	114 .	30	9.2	31	Feed	г.
	-			ROBERT S	ARE	NDT. EA	STEND	-	-		
1C	3	6	В	Thatcher	5.0	_	20	10.0	55	No. 6	F., G.
				Lee	3.4	_	18	10.0	45	Feed	F.
				Redman	3.6	-	19	9.8	46	Feed	r.
No significant	grain y	yield dif	ference	Rescue between varietie	2.8 es.		20	10.0	55	No. 6	F., G.
	-			JOHN W. RI	EBBEC	K. SOUT	H FOR	K	-	-	
1A	3	7 °	A	Thatcher		107	26	10.0	54	No. 6	F., G., I.
***************************************			**	Lee	10.7	117	27	10.0	52	No. 6	F., G., I.
				Redman	14.3	107	27	8.0	53	No. 6	F., G., I.
NT 1:66-		201	al ala	Rescue	10.2	107	28	10.0	53	No. 6	F., G., I.
Necessary diffe	rence-	-2.0 bu	sneis.					-			
14	3	7	В	JACK B.	NIELS 3.5	ON, EAS	TEND		54	No 5	E I Ch
1A	3	7	В	Thatcher	3.7	_	_		54 53	No. 5 No. 5	F., I., Sh. F., I., Sh.
				Redman	3.8	_	_	_	55	No. 5	F., I., Sh.
Niconana diffe		0.4 5	ahal	Rescue	2.8	_	-	-	54	No. 5	F., I., Sh. F., I., Sh. F., I., Sh.
Necessary diffe	rence-	-0.4 Du	silei.	100 100							
1.4	3	9	A	ALLAN R.	9.0	ER, CRIC	HTON		62	3 Nor	RI E
1A	3	9	A	Thatcher	4.5				62 60	3 Nor.	Bl., F. Bl., G., F.
				Redman	5.7	_	_	_	59	4 Nor. 3 Nor.	Bl., F.
				Rescue	2.3	-	-	-	61	3 Nor.	Bl., F.
Necessary diffe	rence-	-1.5 bu	ishels.								
				DANIEL J.							_
1A	3	9	В	Thatcher	25.2	103	31	10.0	58	No. 5	F., G., I.
				Lee	19.9	109	34	9.0	54	No. 6	F., G., I.
				Redman	23.6 17.2	105 107	32 35	10.0 10.0	55 56	No. 5 No. 5	F., G., I. F., G., I. F., G., I.
Necessary diffe	rence-	-3.4 bu	shels.								,,
			1	LLOYD E. CA	RPEN	TER, HA	ZENMO	RE	-		
1A	3	10	A	Thatcher	12.5	99	24	7.8 9.0	43	Feed	F.
				Lee	14.9	101	24	9.0	45	Feed	F.
				Redman	10.7	99 104	24 24	7.0	43 45	Feed Feed	F. F. F. F.
Necessary diffe	rence-	-1.3 bu	shels.	rescue	0.5	104	24	1.0	43	recu	
(A)=Insufficie				weight.			-				
(E)=Estimated			3								
					20	,					

# Wheat Pool District 3—Continued

				W Heat I out	Disti	1000	Joinna	cu			
Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
			-	DONALD L.	TUR	GEON, K	INCAII	)			-
1A	3	10	В	Thatcher Lee Redman Rescue	14.6 13.5 13.6 13.1	104 99 98 104	=	= 1	57 57 56 58	3 Nor. 3 Nor. 4 Nor. 3 Nor.	Sh. Sh. Sh.
Necessary diffe	rence-	6 bus	shel.	100000	15.1	10-1			,,,	3 1401.	Diii.
Tests D	iscard	ed on	Account	t of Damage by	Drou	ght, Pest	s, Frost	, or Othe	er Cause	es	
1A	3	3	A B	Robert H. Plan	t, Brad	cken.					
1C 1C	3	5	A	George G. Gilbe Eiliv H. Anders	ertson,	bsart.					
1C		5	В	Kenneth B. We	naas, l	Robsart.					
3			,	WHEAT P	OOL	DIST	RICT	4			
				C******			mmoar				
1B	4	2	A	SHIRLEY Thatcher	15.3	JUH, HA	TION	_	56	4 Nor.	_
10	7	2		Lee	14.4		_	_	59	3 Nor.	I.
				Redman Rescue	13.2 14.1	_		_	54 58	No. 5 3 Nor.	ī.
No significant	grain	vield di	fference	between varietie					50	3 1401.	1.
- to organization	B. u	, 1010 01				CERT CIT	Y A	7773			
**	,			H. DEAN MO		SEN, GU	15	9.0	64	2 1	P I
1A	4	4	A	Thatcher	12.1 8.6	_	15	9.0	64	2 Nor. 4 Nor.	F., G., I.
				Redman	10.2	-	18	9.4	62	3 Nor.	F., I. F., G., I. F., G., I.
Necessary diffe	rongo	12 b	acholo	Rescue	7.1	_	16	9.4	64	2 Nor.	F., I.
	Telle-	-1.2 D	-	-	-						
				ENNETH J. SA		, GOLDI	EN PRA	IRIE			
1B	. 4	6	A	Thatcher	9.2 8.8			_	58 59	4 Nor.	I. F., I.
				Redman	8.9	-	_	_	56	No. 5 No. 5	I.
NT::6:			.cc	Rescue	8.2	_	-	_	59	4 Nor.	I.
No significant	grain	yleid di	Herence	between varietie							
				CLARENCE							
1B	4	7	A	Thatcher	3.4	82 78	17 13	7.2 7.8	62 60	2 Nor.	I. I.
				Redman	3.1	80	15	6.4	60	2 Nor. 2 Nor. 2 Nor.	î.
Necessary diffe	ronco	7 hu	chal	Rescue	3.4	81	16	9.0	61	2 Nor.	I.
	erence-	<i>t</i> bu									
				AWRENCE W.		WELL, R					_
1B	. 4	7	В	Thatcher	10.1	_	16 15	8.8 8.8	61 61	No. 5 No. 5	F. F.
				Redman	7.5	-	16	9.0	59	No. 5	F.
Necessary diffe	erence-	-2.4 b	ushels.	Rescue	7.3	_	17	8.6	61	No. 5	F.
				CYLADIEC	2 354	TOTAL CO	OF DOTE !		-		
1.4	4	9	A	CHARLES I	6.1	KIIN, S	CEPTR		52	No. 6	FC
1A	. 4	9	A	Lee	5.3	_	_	_	52 50	Feed	F., G. F., G. F., G. F., G.
				Redman	6.6	_	_	_	53 53	Feed No. 6	F., G.
No significant	grain	vield d	ifference	Rescuebetween varietie					53	140. 0	r., G.
- Olganicalit		, icia a	c.ciice		-						
1.4	,	0	p	CLIFFOR		KE, SCE	PTRE		57	No F	PI D C T
1A	. 4	9	В	Thatcher	4.7		_	=	57 56	No. 5 No. 5 No. 5	Bl., D., G., F Bl., G., F Bl., G., F
				Redman	4.6	-	-	_	55 57	No. 5 4 Nor.	Bl., G., F
No significant	grain	vield d	ifference	Rescuebetween varietie		-	-	-	31	4 INOT.	Bl., G.
- O Significant	grani	Jiciu u	illerence	Detween varietie				-			
T	ests I	Discard	led on A	ecount of Dam	age b	y Drough	t, Pest	s, Frost,	or Othe	r Cause	3
1B	. 4	1	A B	Ernest W. Earl Ralph Cooke, C Daryl Heron, S	I, Side	wood.					
1A	. 4	10	A	Daryl Heron, S	Shackle	eton.					
1A	. 4	10	В	Don M. Ander	son, H	azlet.					

# WHEAT POOL DISTRICT 5

Cereal Variety Zone	Dist	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				JAMES R. N	OBLE	MITCH	ELLTO	V			
1A	. 5	1	В	Thatcher Lee Redman	24.1 21.1 21.0	=	=	=	65 65 64	3 Nor. 3 Nor. 3 Nor. 2 Nor.	F. F. F., I.
Necessary diffe	erence-	—1.1 bu	shels.	Rescue	21.4	_	_		66	2 Nor.	F.
		E	DMUNI	O G. and GEI	RALD	E. JACOI	B, ST. I	BOSWEL	LS		
1A	. 5	2	A	Thatcher Lee Redman	20.2 16.6 19.8	95 95 96	21 19 21	8.4 9.6 9.0	62 60 62	2 Nor. 2 Nor. 2 Nor.	Bl. S.F. Bl., S.F. Bl., S.F. Bl., I., S.F
Necessary diffe	erence-	—1.0 bu	shel.	Rescue	16.8	96	22	9.8	63	2 Nor.	Bl., I., S.F
				THOMAS J	RIIN	CIE PAT	MRRIIN	-			
1A		3	A	Thatcher Lee Redman Rescue between varietie	26.2 25.0 24.3 21.5	127 106 129 113	30 30 30 30 30	7.4 7.6 7.4 9.2	59 60 59 60	3 Nor. 3 Nor. 3 Nor. 2 Nor.	Bl., I. Bl. Bl., I. Bl.
140 Siginficant	grain.	yield dii	iciciicc								
2C		4	A	Thatcher Lee Redman Rescue	BROW	N, MeM.	36 36 34 36	9.0 7.4 9.0 9.0	=	=	=
Destroyed by	frost.										
1A	. 5	4	В	ThatcherLeeRedman	27.1 23.1 24.2	R, WALI	36 35 35	8.4 7.8 8.2	60 59 59	3 Nor. 4 Nor. 4 Nor.	F. F. F.
Necessary diffe	erence-	—1.9 bu	shels.	Rescue	28.1	007	38	6.2	60	3 Nor.	F.
				RAYMOND J.		sow, Ho	DGEVII	LE			
1A	. 5	5	A	Thatcher Lee Redman Rescue	12.9	Ξ	=	=	62 64 61 64	2 Nor. 2 Nor. 4 Nor. 2 Nor.	I. I. I.
No significant	grain	yield dif	ference	between varietie	es.			, July	ut l		
1A		6	A	ThatcherLeeRedmanRescue	43.1 30.7	100 106 100 100 100	36 36 36 36 36	7.0 6.0 8.0 9.5	62 59 61 64	3 Nor. No. 5 4 Nor. 3 Nor.	F., G. F., G. F., G. F., G.
Necessary diffe	erence-	—2.1 bu	sneis.			-		- In - 1	Tile blein	5 411	
1A		6 vield dit	C	T. GLYN M. Thatcher Lee Redman Rescue between varietie	38.9 39.1 39.2 40.6	118 118 119 118	WIVES	7.2 7.6 7.2 9.0	63 62 63 63	3 Nor. 3 Nor. 3 Nor. 3 Nor.	F., G. F., G. F., I. F., I.
	grain	yield dil	Terence			TTT DA	DWDEG				
1A		7	A	ThatcherLeeRedmanRescue	31.8 29.0 31.0 30.6	89 91 91 92	24 21 23 26	7.8 7.0 6.8 9.4	63 63 61 63	3 Nor. 2 Nor. 3 Nor. 3 Nor.	F. F. F., I. F., I.
No significant	grain	yield dif	ference	between varietie	es.	- miles					
2E	. 5	7	В	GRANT Thatcher Lee Redman Rescue	36.2	99 100 98 99	38 36 37 38	9.2 10.0 8.8 8.0	64 63 63 64	4 Nor. No. 5 4 Nor. 4 Nor.	F., G., I. F., G. F., G., I. F., G., I.
Necessary diffe	erence-	—2.3 bu	shels.								-, -, -,
2E	. 5	8	JOYC A	ThatcherLeeRedmanRescue	33.6 35.5 33.4	114 123 114 114	41 46 32 45	9.6 9.6 10.0 8.8	58 57 58 59	No. 5 No. 6 No. 5 No. 5	F., G. F., G. F., G. F., G.
Necessary diffe	erence-	—1.8 bu	shels.	2100401111111111		***	7.5	0.0	35	140. 5	1., G.

# Wheat Pool District 5-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				DONALD	G. NA	SH, EYE	BROW				
2B	5	8	В	Thatcher Lee Redman Rescue	10.3 9.6 11.2 12.1	=	26 23 26 28	7.2 9.0 8.4 7.4	62 60 62 62	3 Nor. No. 5 4 Nor. 3 Nor.	F. F. F., I. F.
Necessary diffe	rence-	—1.2 bu	shels.								
1A	5	9	В	GORDON Thatcher	42.1	118 124	36 29	10.0	61	3 Nor.	F., Bl.
Necessary diffe	rence-	-3.0 bu	shels.	Redman Rescue	37.7 36.5 40.5	123 120	34 38	10.0	59 59 62	3 Nor. 3 Nor. 2 Nor.	F., Bl., I. F., Bl., I. S.F., Bl., I
	-			JAMES C.	McKA	V. LOG Y	VALLEY	7		-	
1A	5	10	A	Thatcher Lee Redman	11.3	108 111 108	20 19 20	5:0 8.8 8.0	60 61 60	3 Nor. 3 Nor. 3 Nor.	F., I. F. F., I.
No significant	grain y	yield di	fference	Rescue	12.2	108	24	10.0	62	3 Nor.	F., I., Pk
						R, ERNF					_
1A	5	10	В	Thatcher Lee Redman Rescue	25.1	99 104 102 100	31 29 33 28	8.6 7.4 8.6 9.4	64 64 64 65	3 Nor. 3 Nor. 3 Nor. 3 Nor.	F., G., I. F., G., I. F., G., I.
Necessary diffe	rence-	-5.4 bu	shels.	Rescue	20.0	100	20	9.4	05	3 1401.	r., G., I.
1A	5	1	A	ecount of Dan Helmut Eisen	, Mitch	ellton.		, Frost, o	r Other	Causes	
1A	5	9	A	Marjory A. G	ooding,	Central B	utte.				
				WHEAT		DIST		6			
3C	6	2	A	Thatcher		110	ANA	_	63	No. 5	F.
				Lee Redman Saunders	9.4	110 107 109	Ξ	Ξ	61 62 63	No. 5 No. 6 No. 5 4 Nor.	F. F. F. F.
Necessary diffe	erence-	—1.1 bu	ishels.								
				FRANK S			STONE				
2E	6	3	A	Thatcher Lee Redman	26.9 27.1	94 92 95	=	9.6 6.4 9.3	64 64 63	2 Nor. 3 Nor. 3 Nor.	G., I. F., G., I. F., G., I.
No significant	grain	yield di	fference	Rescue between variet	ies.	95	_	9.8	65	2 Nor.	G., I.
			WI	LFRED R. G.	FILAZ	ZEK. SPR	RING V	ALLEY			
1A	6	4	A	Thatcher Lee	34.6 29.6	=	30 29	=	65 65	2 Nor. 1 Nor.	<u>I.</u>
				Redman Rescue	29.4	=	30 31	= -	63	3 Nor. 2 Nor.	I. I.
Necessary diffe	erence	—1.4 bi	ishels.	rescue	20.7		31		05	2 1 1011	••
				M. DOREEN	JEFFI	ERY, BRI	ERCRE	ST			
1A	6	6	Α	Thatcher	46.5	=	33 33	8.8	65 64	1 Nor. 1 Nor.	=
No significant	aroin	wield di	fforonco	Redman Rescuebetween variet	39.2	=	34 34	8.8 8.4	63 65	2 Nor. 1 Nor.	<u>I.</u>
- Significant	grain	yield di	Herence								
2E	6	7	A	BOB L. PI		109	ZEHNEF 33	9.2	64	2 Nor	I.
				Lee Redman	13.0 14.4	109 105	33 31 34	7.4 8.0	62 62	2 Nor. 3 Nor. 3 Nor. 2 Nor.	I. F., G. F., G.
Necessary diffe	erence	-2.2 bi	ishels.	Rescue	22.9	109	34	8.0	64	Z INOT.	I.
	-		1000	KENNETH .	I. THE	PIN. SIN	TALIT	'A			
3C	. 6	8	A	Thatcher	41.0	_	_	=	59 56	4 Nor. No. 5	I. I.
				Redman Saunders	40.8	_	_	=	59 58	No. 5 4 Nor. 4 Nor.	I. I.
Necessary diffe	erence	-2.0 b	ushels.	Saunders	30.4	100			36	4 1401.	4.

# Wheat Pool District 6-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
3C	. 6	8	В	CLIFFORD A. Thatcher	13.8	BY, IND	IAN HE	AD _	62 64	2 Nor. 3 Nor. 3 Nor.	F., I. F., I. F., I.
Necessary diffe	erence-	-3.3 bu	ishels.	Redman Saunders	15.7 11.4	=	=	=	61	3 Nor. 3 Nor.	F., I. F., I.
			WI	LLIAM J. ML	AZGAF	. FORT	OTI'APE	PELLE			
3C	. 6	9	A	Thatcher Lee Redman	30.2 25.7 29.6	=		=	60 56 59	No. 5 No. 6 4 Nor.	F., G. F., G. F., G. F., G.
Necessary diffe	erence-	-1.9 bu	shels.	Saunders	31.2	-	-	_	60	4 Nor.	F., G.
				DAVINGOND		CIEDARNE	D T C T T T T				-
2B	. 6	10	A	RAYMOND Thatcher	J. KI	STNER,	DISLEY 15	6.8	59	3 Nor.	I.
25	. 0	10	A	Lee Redman Rescue	10.7 10.3 9.6 10.4	=	15 15 16	7.0 6.8 7.4	62 59 62	3 Nor. 3 Nor. 2 Nor.	I. I. I.
No significant	grain	yield di	fference	between varieti					02	2 1 1011	
-				JAMES E. N	TOKEC	HNIE' B	ETHIIN	E			
2B	. 6	10	В	Thatcher	14.1	87	18	9.0	64	1 Nor.	_
				Lee Redman	11.8	86 87	18 18	9.0	63 63	2 Nor. 2 Nor.	I. I.
NI00000000 4:66		111.	ll-	Rescue	10.4	88	18	9.4	64	1 Nor.	-
Necessary diffe	erence-	-1.1 bt	isneis.								
La late				WHEAT F	OOL	DIST	RICT	7	late plan	a ren't d	nipilingh M
				DICK F.							
3A	. 7	1	A	Thatcher	19.3 26.5	107 111	43 45	9.0 5.0	60 62	4 Nor.	S.F., G., I F., G., I. F., G., I.
				Redman Saunders	24.4 15.6	106 105	48 46	9.0	62 59	No. 5 No. 5 3 Nor.	F., G., I. S.F., G., I
Necessary diffe	erence-	-2.5 bu	ishels.	Saunders	15.0	103	40	9.0	39	3 1401.	S.F., G., 1
		1111		L. JACK L	EMOI	NE. MOC	SOMIN	w			
3B	. 7	2	A	Thatcher	11.5	110	30	10.0	61	3 Nor.	F., G., I.
				Lee Redman	14.0	106 108	28 28	10.0	60 60	4 Nor. 3 Nor.	F., G.
Domogod by b	oil Vi	alda mar	t wood is	Saunders	9.8	111	28	10.0	58	3 Nor.	F., G., I. F., G. F., G., I. F., G.
Damaged by n	ian. 11	eids no	t used 11	n zone summarie	S.	1.0	-	4		1	
			-	T. ELVIN		N, MOO				150.00	
3B	. 7	2	В	Thatcher	15.7 28.0	=	41 39	6.0 8.0	56 60	4 Nor. 3 Nor.	F., S.I.
				Redman Saunders	17.8 8.5		42 37	7.0 5.0	53 48	No. 5 Feed	F., S.I. F., G., I. F., G., Sh F., Sh.
Necessary diffe	erence-	-2.7 bu	ishels.	Daunders	0.5		31	5.0	40	reed	r., 511.
				R. B. ROSS	CLEM	ENTS V	ANDUR	A	a str		1000
3A	7	3	A	Thatcher	23.1	102	40	9.0	61	3 Nor.	F., I.
				Lee Redman	26.8	114 98	42 41	8.2	63 62	3 Nor. 3 Nor.	F., G., I.
NI 4:66		264	-al-al-	Saunders	18.9	98	40	9.0	60	3 Nor.	F., I. F., G., I. F., I. F., I.
Necessary diffe	erence	-2.0 DI	isneis.			1 100			-		
				DONALD G. O		ON, WIN					
3A	. 7	4	A	Thatcher	7.7 12.6		36 40	9.0	41 44	Feed Feed	F. F.
				Redman Saunders	10.3	-	36 36	9.0	44	Feed	F. F.
Necessary diffe	erence-	9 bus	hel.	Dauliders	1.9	4 6	30	9.0	43	Feed	r.
				LYALLE E. I	). PIIB	DON C	REELMA	N			
2A	. 7	5	A	Thatcher	16.8	_	37	7.0	53	No. 6	F., G., I.
				Lee Redman	20.1 18.2	_	33 35	8.0	52	Feed No. 6	F., G., I. F., G., I. F., G.
NT		1	.11	Rescue	21.8	1	36	10.0	52 55	No. 6	F., G.
Necessary diffe	erence-	-1.6 bt	ishels.								

## Wheat Pool District 7—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
3A Necessary diffe	7	6 -1.2 bu	A	Thatcher Lee Redman Saunders	5.3 5.7 7.7 6.5	CANDIA	c	Ξ	43 42 43 45	Feed Feed Feed Feed	F. F. F. F.
Trecessary diffe	Tence-	-1.2 Du	isileis.								
3A	7	7	A	ROBERT J. Thatcher Lee Redman Saunders	29.6 32.6 29.6	97 96 97 99	ADVIEV	9.0 4.4 9.0 9.0	57 56 56 58	Feed Feed No. 6 No. 5	F. F. F.
Necessary diffe	rence-	-2.2 bu	isneis.								
3C	7	8	A	THOMAS Thatcher Lee Redman Saunders	15.2 21.5 18.6	112 112 112 112 112 110	38 38 39 35	9.8 7.6 9.4 10.0	58 54 56 58	No. 5 Feed No. 5 No. 5	F., G., Bl F., G., Bl. F., G., Bl.
Necessary diffe	rence-	-1.4 bu	shels.								1, 0, 2,
3B	7	9 -1.4 bu	A shels.	FRED W. B. Thatcher Lee Redman Saunders	30.0 30.8 31.6	Y JR., SI 82 87 86 82	45 40 44 39	10.0 9.0 10.0 10.0	61 61 62 61	No. 5 No. 5 No. 5 4 Nor.	F., G. F., V.G. F., G. F., V.G.
	-			ROBERT C.	LANDI	NE STO	CKHOI	M		-	
3C	7	10	A	Thatcher Lee Redman Saunders	29.3 35.4 29.1 30.9	——————————————————————————————————————		=	61 59 57 58	3 Nor. 4 Nor. 4 Nor. 3 Nor.	F., G., I. F., G., I. F., G., I. Bl., S.I.
No significant	grain y	yield dif	fference	between varieti	es.						
3C	7	11	A	VERNON I Thatcher Lee Redman Saunders	27.6 27.5	LER, LEN 109 111 110 109	31 29 29 30	9.2 9.4 8.6 8.0	59 59 60 62	No. 6 No. 6 No. 5 4 Nor.	F. F. F.
Necessary diffe	rence-	—1.9 bu	shels.								
			,	WHEAT F	POOL	. DIST	RICT	8			
3B	8	1	A	AMBROSI Thatcher Lee Redman Saunders	27.9 22.0 30.5	KOW, CA	LDER	Ξ	58 56 59 60	No. 5 No. 6 No. 5 No. 5	F., I. F., G., I F., I. F., I.
Necessary differ	rence-	-3.3 bu	shels.	Saunders	20.1	-	-		00	140. 3	Г., 1.
3B	8	1	В	ThatcherLeeRedmanSaunders	27.2 28.5 30.3	K, CHUR 106 106 105 106	37 37 37 37 37 34	8.6 9.0 8.8 8.2	58 56 57 59	No. 6 Feed No. 6 No. 5	F. F. F. F.
Necessary differ	rence-	-1.5 bu	shels.								
3B	8	2	A	JAMES R Thatcher Lee Redman Saunders	28.0 30.3 27.7 26.1	Y, SALTO	OATS	Ξ	62 60 61 61	4 Nor. No. 5 4 Nor. 4 Nor.	F., G. F., G. F., G., S.E. F., G.
No significant g	grain y	viela dit	ierence						-		
3C	8	3 _2 5 bu	A	Thatcher Lee Redman Saunders	21.7 24.4 29.6	LUMB, DI	34 36 36 36 34	10.0 5.0 8.0 8.0	51 48 52 50	No. 6 Feed No. 6 Feed	F., I. F. F., I. F., G.
- Transaction afficient		213 50		EDWIN M	ITPEN	GA MET	VILLE				
3C	8	3	В	Thatcher Lee Redman Saunders	20.6	GA, MEL		Ξ	55 54 55 56	No. 5 No. 6 No. 5 No. 5	F., G., I. F., G., I. F., G., I. F., G., I.
Necessary differ	rence-	-1.7 bu	shels.								

# Wheat Pool District 8—Continued

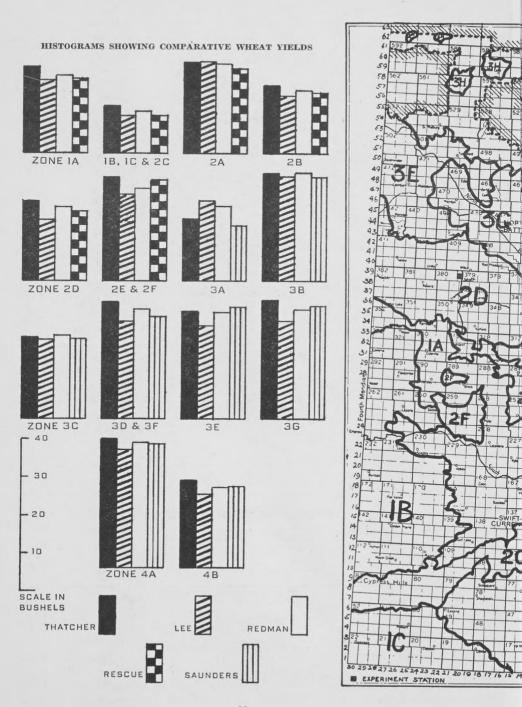
Cereal Variety Zone D	ist.	Sub- Dist	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				GERALD SMI	ERCHY						
3C	8	4	A	Thatcher Lee Redman Saunders	15.9 16.6 16.7 14.3	=	=	Ξ	62 62 62 63	3 Nor. 4 Nor. 3 Nor. 2 Nor.	G., I. F., G., I. G., I. G., I.
No significant gra	ain y	ield dit	ference								
3B	8	5	С	Thatcher Lee Redman Saunders	34.7 29.7	104 104 101 103	36 35 36 36 35	10.0 10.0 10.0 10.0	58 54 56 57	No. 5 Feed No. 5 No. 5	F., I F. F., G., I
Necessary differen	nce-	-2.1 bu	shels.	Daumetts	31.3	103	33	10.0	31	140. 5	F., G., I.
			DI	ANNE AND P		ROKOPI					
3B	8	6	A	Thatcher Lee Redman Saunders	16.8	113 110 106	36 33 34 33	2.0 3.0 3.0 3.0	65 63 64 64	1 Nor. 3 Nor. 2 Nor. 1 Nor.	S.I. F., G., I. S.F., I. S.I.
Necessary differen	nce-	-1.9 bu	shels.	Saunders	10.2	100	33	3.0	04	1 1401.	5.1.
			1000	METRO WA		K, AMST	ERDAM	t	7		
3B	8	6	В	Thatcher Lee Redman Saunders	22.8 22.3 23.3	Ξ	=	=	52 53 53 56	No. 6 No. 6 No. 5	F., G., Sh F., G., Sh F., G., Sh F., G., I.
No significant gra	iin y	ield dif	ference								
3B	8	7	A	ThatcherLeeRedman	39.8 39.7	115 114 113	MA 44 44 44	5.8 2.0 5.4	56 53 56	No. 5 No. 6 No. 5	F., G., I. F., G., I. F., G., I.
Samples bulked.	Yield	ls not u	ised in z	Saunders	43.6	114	42	3.8	57	No. 5 No. 5	F., G., I.
	-			LEVENTINE	OCHI'	TWA, NO	RQUAY	7.			
3B	8	9	A	Thatcher Lee Redman Saunders	55.3	106 111 106 108	30 36 30 30	6.8 5.2 6.8 6.6	62	No. 5 No. 5 4 Nor. 4 Nor.	F., G. F., G. F., G. F., G.
Necessary differen	nce-	-2.9 bu	shels.				-149				-,
	0	10				TER, PE	LLY				-
4A	8	10	A	Thatcher Lee Redman Saunders	37.8 38.6 41.3	Ξ	Ξ	10.0 9.0 8.0 5.0	46 46 47 48	Feed Feed Feed Feed	F. F. F.
No significant gra											
3B 3B	8 8	Discar 5 8	A A	Account of Da Francis E. Pen Edward G. Tu	mage l miston, nbridge	Togo. , Preecevil	<b>ht, Pest</b> lle.	s, Frost, o	or Other	r Causes	
		. 0		WHEAT F	POOL	DIST	RICT	9	1		
3C	9	1	A	Lee Redman	7.9 6.8	7 <b>RE, ITU</b> 109 104 109	32	=	44 46 44	Feed Feed Feed	F., I. F., I. F., I.
Necessary differen	nce-	-1.0 bu	shel.	Saunders	8.2	107	32	_	46	Feed	F., I.
3C	9	2	A	ROBERT Thatcher Lee Redman	25.9 22.2 24.4	98 99 99	34 30 34	9.0 9.0 8.0	62 60 62	4 Nor. No. 5 4 Nor.	F., G. B.F. F., I.
No significant gra	ain y	rield dif	fference	Saunders	23.5	100	32	8.0	63	4 Nor.	F., G.
2B	9	2	C	RD W. AND I Thatcher Lee	24.1	RD C. N.	33	5.4	0 60 58	4 Nor. No. 5	F., I. F., I.
Necessary differen	nce-	-1.8 bu	shels.	Redman Rescue	28.5 23.0	=	34 36	8.2 7.0	60 57	No. 5 No. 5 No. 5	F., I. F., I. F., I.

# Wheat Pool District 9-Continued

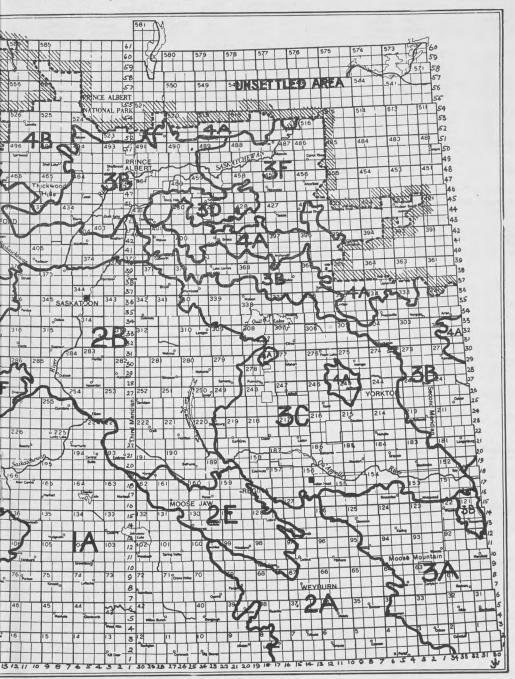
Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
3C Necessary differ	9 ence-	3 -1.6 bu	A shels.	ERNEST Thatcher Lee Redman Saunders	20.9 19.0 23.4 23.0	N, PUNN	37 34 37 35	8.6 8.4 8.2 6.6	55 54 56 57	No. 6 Feed No. 6 No. 6	F., I. F F., I. F., I.
	-			TYPE T TABE T	DAD	T 1010 TC101	T TTTTT				
3C	9	3	В	Thatcher Lee Redman Saunders	20.2 16.3 18.7 20.1	107 106 105 104	25 25 25 25 24	8.2 7.8 7.8 7.8	64 62 63 63	3 Nor. No. 5 4 Nor. 3 Nor.	F. F. F.
Necessary differ	ence-	-1.1 bu									
2B No significant g	9	4 vield dif	A	RONALD H. F. ThatcherLeeRedmanRescuebetween varieti	11.4 11.3 11.5 13.7	98 97 97 98 98	21 21 21 21 23	9.0 9.6 9.4 9.8	60 62 59 61	2 Nor. 1 Nor. 3 Nor. 1 Nor.	<u>I.</u> <u>I.</u>
2B	9	6	A	KENNETH ThatcherLeeRedmanRescue	N. ROC 8.0 5.4 7.0 7.3	107 111 107 108	27 27 27 27 30	10.0 10.0 9.8 9.2	60 58 60 60	4 Nor. No. 5 4 Nor. 4 Nor	F., G. F., G. F., G. F., G.
2B	9	6	D	ROBERT F. Thatcher Lee Redman Rescue	EDWA	96 99 94 97	27 26 29 27	10.0 9.0 10.0 10.0	63 62 62 63	3 Nor. 4 Nor. 3 Nor. 3 Nor.	F. F. F. F.
Necessary differ	ence-	-1.5 bu	shels.								
2B	9	7	A	RONALD Thatcher Lee Redman Rescue	22.2	DAR, SEN	35 36 35 36 35 36	9.0 8.6 8.8 9.0	55 54 53 54	No. 6 No. 6 No. 6 No. 5	F., I. F., I., Sh. F., G., I. F., I
Necessary differ	ence-	-2.8 bu	shels								
3C  Damaged by live	9 estocl	8 c. Yield	A s not us	Lee Redman Saunders	36.8 35.4 33.1	109 109 109 109 109	28 28 28 28 28 28	9.0 9.0 9.0 9.0	62 61 62 62	No. 5 No. 5 No. 5 4 Nor	F., G., I. F., G., D F., G., I. F., I
		-		WALTER	D PFD	DV WII	HAPT	-			
3C Necessary differ	9 ence-	9 -1.3 bu	A shels.	Thatcher Lee Redman Saunders	17.2		36 36 37 36	9.0 9.0 8.0 9.0	56 55 57 57	No. 6 No. 6 No. 6 No. 6	F., G., I. F., G., I. F., G., I. F., G., I.
3C	9	10	A	A. LEON Thatcher Lee Redman	ARNA 12.5 17.7 9.6 12.4	SON, ELI 100 100 99 100	32 32 32 29 30	Ξ	61 58 60 61	No. 5 No. 6 No. 5 No. 5	F., G. F., G. F., G. F., G.
Damaged by bir	ds. Y	ields no	ot used	Saunders in zone summar		100	30		01	140. 5	r., G.
WHEAT POOL DISTRICT 10											
2B	10	1 —1.2 bu	A	Thatcher Lee Redman Rescue	24.7	s, cham	IBERLA 	IN	63 64 63 64	1 Nor. 1 Nor. 1 Nor. 1 Nor.	=
2Bdiffer	10	1 1 3 br	B	H. MER Thatcher Lee Redman Rescue	13.4 10.6 12.2	SSON, CF	25 23 25 27	Ξ	64 63 63 65	1 Nor. 3 Nor. 2 Nor. 1 Nor.	S.I. F., I. I. S.G., I.
Necessary differ	ence-	1.5 00	ionels.				-			1	

# Wheat Pool District 10-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				WAYNE L.		-				0	
2B	10	2	A	Thatcher	7.9	-	22	- "	59 62	3 Nor. 2 Nor.	Į.
				Lee Redman	7.3	=	20 23	_	62 58	2 Nor. 3 Nor.	I. I.
Necessary diffe	rence-	9 bus	hel.	Rescue	8.3	-	25	-	61	2 Nor.	I.
- Treecoury dire	rence	17 645	iici,	JOHN M. N	/cDON	ALD WI	SETON				
2F	10	4	A	Thatcher	26.7	_	_	_	51	No. 6	F., Bl.
				Lee Redman	19.8	-	-	-	50	Feed Feed	F., Bl.
NT		. 1 1 11	cc	Rescue	24.0	=	_	=	49 54	No. 5	F., Bl. F., Bl. F., Bl.
No significant	grain y	riela all		between varietie		CDT TO C	T TINTON	DE			
2B	10	6	A	Thatcher	11.8	SELIG, C	LENSI	DE _	61	No. 5	F.
22	10		**	Lee	7.5	_	_	_	59	No. 6	F.
				Redman Rescue	9.2	=	=	=	61	No. 6 No. 5	F. F.
Necessary diffe	rence-	-1.8 bu	shels.								
an	10	0				N, SIMPS	SON			2 27	
2B	10	8	A	Thatcher	34.1 29.6	_		_	64 64	3 Nor. 4 Nor.	F., I. F., G., I.
				Redman	30.7	_	_	_	65 65	3 Nor. 3 Nor.	F., I.
Necessary diffe	rence-	-1.8 bu	shels.	Rescue	30.0				05	3 Nor.	F., I.
				ALAN L.		E, IMPE	RIAL				
2B	10	8	C	Thatcher	5.0 3.6	91 90	12 12	9.4 9.6	55 60	4 Nor.	ī.
				Redman	5.1	91	11	9.2	56	2 Nor. 4 Nor.	-
Necessary diffe	rence-	5 bus	hel.	Rescue	4.3	92	13	9.2	57	3 Nor.	
		11111		ALAN L.	HAIG	нт, нам	VLEY				
2B	10	9	A	Thatcher	8.4	95 97	18 17	7.8	60 59	No. 5 No. 5	F., G.
				Redman	7.7	97	19	7.2	60	4 Nor.	F., G. F., G. F., G. F., G.
Necessary diffe	rence-	7 bus	shel.	Rescue	10.0	96	19	7.2	61	4 Nor.	F., G.
				кеттн н. р	AHLE	N, VALLE	EY PAR	K			
2B	10	10	В	Thatcher	19.0	-	-	8.6	58 56	4 Nor. No. 5	F., G., Bl.
				Lee Redman	17.0	=	_	9.0	57	4 Nor.	F., G., Bl. F., G., Bl. F., G., Bl.
Necessary diffe	erence-	-2.7 bu	ishels.	Rescue	15.7	_	-	8.6	57	4 Nor.	F., G., BI
			-	ecount of Dan	nage by	v Drough	t. Pests	Frost. o	r Other	Causes	
1A	10	5	A	Norman G. Co	oper, 7	ichfield.	0, 2 0505	, 2 2000, 0	2 0 02202	Cuuscs	
2B	10	10	A	D. Glenn Ada	ir, Harr	is.					
			V	WHEAT P	OOL	DIST	RICT	11			No.
	-		-	ROBERT I	c. CAL	WELL, E	LROSE				
2F	11	2	A	Thatcher	12.9	-	-	7.2	61	4 Nor.	F., I.
				Lee Redman	10.6	=	=	8.2 7.4	61 62	4 Nor. 4 Nor.	F., I. F., I. F., I. F., I.
Necessary diffe	erence-	—1.4 bi	ishels.	Rescue	14.6	-	-	9.0	61	4 Nor.	F., I.
				GARY A. (	CLEME	NCE, PI	NKHAN	ī			
1B	. 11	5	A	Thatcher	26.6	_	32	9.0	56	No. 5	F., G.
				Lee Redman	20.2	=	32 37 35	7.0 8.0	55 57 57	No. 6 No. 5 No. 5	F., G. F., G. F., G.
Necessary diffe	erence	-2.3 bi	ishels.	Rescue	22.4	-	35	6.0	57	No. 5	F., G.
				DALE M. S	CRIVE	NS. ROS	ETOW	V	-		
2B	. 11	7	A	Thatcher	21.1	_	34 33	_	61 59	No. 5	F., G., I.
				Lee Redman	12.7 17.3	=	34		59 61	No. 5 No. 6 No. 5	F., I. F., G., I. F., G., I.
		1500		Rescue	18.4	_	33	-	60	No. 5	F., G., I.
Necessary diff											



## Cereal Variety Zones of Saskatchewan



#### Wheat Pool District 11—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				J. ESTHE	R BAF	RETT, F	TISKE				
IA	11	8	A	Thatcher Lee Redman Rescue	26.5 20.5 24.0 24.1	=	29 28 29 33	8.0 8.8 8.4 9.0	61 60 60 60	No. 5 No. 5 No. 5 No. 5	F. F. F. F.
Necessary diffe	rence-	-1.9 bu	ishels.								
			-			RATZ, FI					
IA	11	8	В	Thatcher Lee Redman Rescue	31.2 22.4 27.5 28.0	103 101 103 103	30 28 30 30	=	63 63 64 64	2 Nor. 4 Nor. 3 Nor. 2 Nor.	F. F. F. F.
Necessary diffe	rence-	-2.3 bu	shels.				1				
				RALPH G.		ST, DODS					
2F	11	9	A	Thatcher Lee Redman Rescue	34.1 22.9 29.8 27.3	Ξ	36 36 36 36	=	57 53 56 57	No. 5 No. 5 No. 5	F., G. F., G. F., G. F., G.
Necessary diffe	rence-	-3.4 bu	shels.	icocue	21.5		30		51	140. 5	r., G.
T	ests D	iscard	ed on A	ecount of Dam	age by	Drough	t, Pests,	Frost, o	r Other	Causes	
1A	11	1	A	Norma M. Gol	dbeck,	Kyle.					
2F 2F	11	3 6	A	Fred Ziegler, G John R. Klettk	te, Bead	ile.					
		-									
			٧	VHEAT PO	OOL	DISTE	RICT	12			
				WARREN		REFS, BI					
2D	12	1	A	Thatcher Lee Redman	16.3 11.5 17.4	Ξ	26 23 26	8.4 8.2 7.8	61 58 61	No. 5 No. 6 No. 5	F. F. F.
Necessary diffe	rence-	-2.2 bu	ishels.	Rescue	15.0	_	25	7.8	60	No. 6	F.
				ERNEST (	. SIN	GER. BI	GGAR		-		
2D	12	2	A	Thatcher	11.9	_	_	_	62	4 Nor.	F.
				Redman Rescue	7.9 10.7 10.1	=	Ξ	=	60 62 62	No. 5 4 Nor. 4 Nor.	F. F. F.
Necessary diffe	erence-	−1.0 bi	ishel.								
2D	12	3	A	ThatcherLeeRedman	15.0 13.0	ERS, KE	LFIELD	8.4 8.4 8.2	64 64 63	2 Nor. 3 Nor. 3 Nor.	I., Pk. F. I., Pk.
No significant	grain v	vield di	fference	Rescuebetween varietie	11.4	-	-	8.2	65	2 Nor.	F.
. to digitificant	Bruin )	, read til	- CICITOE			PROAD	ACREC				
2D	12	4	A	Thatcher	8.6	BRUAD	24	8.0	53	No. 6	F., G.
				Lee Redman	8.2	=	24 24	5.0 7.0	50 54	Feed No. 6	F., G. F., G., I. F., G., I.
Damaged has			Vialda me	Rescue	10.5	-	21	10.0	56	No. 6	F., G., I.
Damaged by g	rassno	ppers.	rieids no	ot used in zone s							
2D	12	5	A	ROY W.	GREEN 6.6	WALD,	TAKO	_	44	Feed	F.
		- 174		Lee Redman	7.5	_	_	-	43	Feed Feed	F.
	11/2		00	Rescue	7.1 6.8	_		=	47 48	Feed	F. F.
No significant	grain	yield di	Herence	between varietie	es.					1,-75	
2D	12	6	A	MIKE Thatcher	KLOT	Z, DENZ	IL_		62	4 Nor	I PL
2D	12	U	-	Lee	53.9	-	_	_	62	4 Nor. 4 Nor.	I., Pk. Į.
				Redman Rescue	46.0	=	=		61 63	4 Nor. 3 Nor.	I. I.
Necessary diffe	erence-	-7.5 bu	ishels.								
20	10	_		CHARLES Thatcher	W. OI	RR, NEIL	BURG	10.0			F. C.
3E	12	8	A	Lee Redman	47.1	109 112	32	10.0 10.0 10.0	65 64 64	4 Nor. No. 5 3 Nor.	F., G., I. F., G., I. F., G., S F., G., S
		-3.2 bi	schole	Saunders	49.7	107	30	10.0	65	3 Nor.	F., G., S

## Wheat Pool District 12—Continued

Cereal Variety Zone I	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
3E	12	9	A	CALVIN J. Thatcher Lee Redman Saunders	18.1 17.0 17.0 17.4	ING, GA	LLIVAN	Ξ	49 48 48 51	Feed Feed Feed Feed	F., G. F., G. F., G. F., G.
No significant g	rain y	reid dii	nerence				~~~				
3G	12	10	A	ThatcherLeeRedmanSaunders	32.0 24.9 25.4 29.5	шеке, ни 	GHGAT	= = =	64 62 62 63	3 Nor. 4 Nor. 3 Nor. 3 Nor.	F., G. F., G. F., G. F., G.
Necessary differ	ence-	-3.9 bu	ishels.		1					• 11011	1,, 0,
Te 3E 2D	sts <b>D</b> 12 12	iscardo 8 9	ed on A B B	ecount of Dan Edward Melch Hans Karstens	ior. Fre	eemont.	t, Pests,	Frost, o	r Other	Causes	
			V	VHEAT P	OOL	DIST	RICT	13			
			F	RAYMOND E.	A. BF	RECHT, I	BAY TR	AIL			
3C	13	1	A	Thatcher Lee Redman Saunders	26.6 19.4 25.0 24.3	96 94 97 98	34 32 32 31	· =	60 59 59 61	No. 6 No. 6 No. 6 No. 5	F. F. F. F.
Necessary differ	ence-	-1.5 bu	ishels.	Dadiideis	24.5	,,,			01	140. 5	1.
3C	13	1	В	MARJOR Thatcher Lee Redman	16.3 13.3 15.2	BERG, L	EROY	Ξ	57 56 56	No. 5 No. 5 No. 5 No. 5	F., G., I. F., G., I. F., G., I.
No significant g	rain y	rield di	fference	Saunders between varieti	15.6 es.				57	No. 5	F., G., I.
				ALBERT W	ARKE	VTIN. DI	INDURI	7			
2B	13	3	A	Thatcher Lee Redman Rescue	12.2 12.9 11.6 12.8	97 99 98 98	23 18 21 22	8.4 9.0 7.6 8.6	60 62 58 60	3 Nor. 4 Nor. 4 Nor. 3 Nor.	F., G., I. F., G. F., G., I. F., G., I.
No significant g	grain y	yield di	fference								
2B	13	3	В	Thatcher Lee Redman Rescue	7.7 6.4 9.0 8.1	LL, ALLA	N HIL	LS	56 50 54 53	No. 6 Feed No. 6 No. 6	F. F. F.
Necessary differ	rence-	7 bus	shel.							21010	ic.
2B	13	4	A	STUART N. Thatcher Lee Redman	23.8 20.6 21.1	107 107 107	32 30 32	9.0 9.8 8.6	59 56 59	No. 5 No. 5 No. 5	F., I. F., I. F., I.
Necessary differ	rence-	-1.6 bt	ushels.	Rescue	18.9	107	33	8.6	58	4 Nor.	F., I.
2B	13	5	A	MAYNARD I	45.2 42.8 39.3	96 97 95	40 40 38	9.2 9.8 9.8	62 60 61	No. 6 Feed No. 6	F. F. F. F.
Necessary differ	rence-	-2.7 bi	ushels.	Saunders	43.2	95	40	10.0	62	No. 6	F.
				JIMM	Y AGA	R, FLOI	RAL	19			
2B	13	5	В	Thatcher Lee Redman Rescue	24.4 16.6 24.4	Ξ		Ξ	61 57 60 61	No. 5 No. 5 No. 5 No. 5	F., G. F., G. F., G. F., G.
Necessary differ	rence-	-3.3 bi	ushels.								
3G	13	8	A	ThatcherLeeRedmanRescue	15.1 11.8	87 87 87 89 89	25 26 29 28	9.0 10.0 8.0 8.4	54 53 52 54	No. 6 Feed No. 6 No. 6	F, G., I. F. F., G., I.
No significant	grain	yield di	ifference	between varieti		01	20	0.4	34	140. 0	F., G., I.

### Wheat Pool District 13-Continued

SUSAN N. IWASIUK, CUDWORTH		Com- mercial grades	Lbs. per meas- ured bushel	Straw	Plant eight in nches	g to		Yi bi p	Varieties		Test desig- nation	Sub- Dist.	Dist	Cereal Variety Zone
A					ORTH	CUDW	UK	w.	SUSAN N. I					
Necessary difference	F., G. F., G. F., G. F., G.	4 Nor No. 5 No. 5	59 1 61	10.0	21 18 19	96 98 96		12	Thatcher Lee Redman	1	A	9	13	3C
30	1., 0.	11013	02	7.0	20	,,		1	January		shels.	-1.1 bu	ence-	Necessary differ
Lee					ELD	GLEF	K, 1	HL	HARRY					
Necessary difference	F. F. F.	Feed Feed	58 59	=	36 38	04 01		32	Lee Redman	I	A	11	13	3C
### WHEAT POOL DISTRICT 14    SAMES N. WILSON, OKLA	г.	140. 5	- 01	_	33	01		3.	saunders		shels.	-2.2 bu	ence-	Necessary differ
JAMES N. WILSON, OKLA		Causes	Other (	Frost, o	Pests,									
4A				4	CT 1	STR	. D	00	HEAT P	W	V			
Lee					A	N, OK	ILS	N.	JAMES					
Redman	F., G., I. F., G., I.	No. 6	55	=	=	_					A	1	14	4A
No significant grain yield difference between varieties.    WAYNE H. KING, QUILL LAKE   3B	F., G., I. F., G., I. F., G., I.	No. 5	57	_	_	_		25	Redman	1				
3B	F., G., I.	140 0	58		_				etween varieti	e be	ference	ield dif	rain y	No significant g
3B					AKE	UILL	G,	. K	WAYNE H					
Redman	F.			9.4	28	_		17	Thatcher		A	2	14	3B
Necessary difference	F. F.	No. 6	60	8.6	27			18						
LORNE A. HUFNAGEL, SUNSET LAKE   3B.	F.	No. 5	61	8.6	28	-		19	Saunders	5	shels.	-1.6 bu	ence-	Necessary differ
38				T	TIAR	STING	TET	TIETN	DNE A HI	T.				
Lee	F., G.	No. 5	59									3	14	3B
Saunders	F., G. F., G. F., G., I.	No. 6	58	8.0				27	Lee	1				
## FLOYD G. DAHL, DAHLTON  3B	F., G., I.	No. 5	59	9.0				30	Saunders	5	· Forence	: 14 4:4		No significant of
3B					-			-		: De	referice	leid dii	laili y	ivo significant g
Lee	F., G.	4 Nor	62	8.0			HL			7	B	4	14	BB
Saunders	F., G. F., G.	No. 5	60	8.0	40	10		36	Lee	I	Б	7	14	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MICHAEL NAWROCKI, SYLVANIA   44	F., G. F., G.	4 Nor. 4 Nor.	61											
4A											shels.	-2.9 bu	ence-	Necessary differ
Lee							OC							
Redman	F., G., I. F., G., I. F., I.	No. 5 No. 5	59	8.8	.36						A	7	14	‡A
MURRAY F. TATLOW, RESOURCE   3F	F., I. F., I.	4 Nor.	61	9.2	34			32	Redman	I				
3F	.,	, 11011	02	7.2	33	02		3	Jauriaci S		shels.	-2.8 bu	ence-	Necessary differ
Lee					URCE	, RES	LO	. т	MURRAY F	:				
Redman 14.0 — 36 — 55 Feed Saunders 13.1 — 36 — 54 Feed No significant grain yield difference between varieties.  WILLIAM A. BRUCE, BROOKSBY  3D 14 9 A Thatcher 46.9 113 — 64 3 Nor. Lee	F. F.	Feed .	53	_		_					A	8	14	3F
No significant grain yield difference between varieties.    WILLIAM A. BRUCE, BROOKSBY	F.	Feed	55	=	36			14	Redman	I				
WILLIAM A. BRUCE, BROOKSBY  BD	F., G.	Feed .	54	_	36	_			saunders etween varieti	be	ference	ield dif	rain y	No significant g
BD			,		KSRY	BROO	UCI	-			-			
Redman	F., G.	3 Nor.	64 3	_	_	13		46	Thatcher	7	A	9	14	3D
Saunders 39.1 113 — — 63 3 Nor.	F., G. F., I.	4 Nor.	64	_	_	19		40	Lee	1				
recessify difference 1.7 Publicis.	F., I.	3 Nor.	63	-	-						shels	-1 9 bu	ence	Necessary differ
TACTO DE TATONDO ADDODOSTO D		-			7117	DRAT	25		TA CITY TO T		oricis.	1.9 bu	CIICC	decessary differ
JACK F. LALONDE, ARBORFIELD  3F	Stch., I.	3 Nor.	62	_			JE,				A	10	14	3F
Lee	Stch., I. Stch., I. Stch.	3 Nor.	62 3	=	38 39	=		26	Lee Redman	I			27	

## Wheat Pool District 14—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading
				J. LOUIS J	. RIOI	J, ARBOI	RFIELD				
3F	14	10	В	Thatcher Lee Redman	34.0 29.2 28.5	109 112 109	32 33 33	8.8 7.4 9.0	61 59 61	No. 5 No. 6 No. 5	F, G. F., G. F., C.
Necessary differ	ence-	-2.1 bu	shels	Saunders	27.2	107	32	9.2	61	No. 5	F., G.
	-		-	KENNETH M	DRTEN	ISEN PO	NTRII.	AS			
3F	14	11	A	Thatcher	48.8	113	53	6.2	59	No. 6	F., G., I.
				Lee Redman Saunders	36.9 47.4 40.9	114 111 111	53 54 50	2.8 5.4 5.2	55 58 59	No. 6 No. 6 No. 5	F., G., I. F., G., I. F., D., I.
Necessary differ	ence-	-4.5 bu	shels.	24414	, , , ,						,,
				WILLIAM E.		E, SMOK	Y BUR	N			
3F	14	11	D	Thatcher Lee Redman	22.6 18.5 22.7	105 105 105	40 36 37	8.0 7.0 8.0	55 53 56	No. 6 Feed No. 6	F., I. F. F., G., I.
N 1:66		271	-1-1-	Saunders	19.9	102	40	8.0	55	No. 6	F., G., I.
Necessary differ	ence-	-2.7 bu	isnels.								
				ccount of Dan				Frost, o	r Other	Causes	
4A 3B	14 14	4 5	A	Alvin B. Kven Clara R. Keny	on. No	bleville.					
JF	14	6	AB	Evelyn R. Fale Dermot P. Mc	coner, (	Chelan.					
3F	14	11	D	Dermot P. Mc	Dermo	t, Mipawi	11.				
			V	VHEAT PO	OOL	DISTE	RICT	15			
3G	15	4	A	RUEBEN Thatcher Lee	36.5	108 108	34 33	9.8 9.6	62 60	No. 5 No. 6	F. F.
				Redman Saunders	32.4	109 111	34 33	9.4	61 62	No. 5 4 Nor.	F. F.
Necessary differ	ence-	-3.1 bu	ishels.				10/11				
				DAN R. HUI	NCHAI	K, BLAIN	E LAK	E			
3G	15	5	A	Thatcher	21.9		27 26	=	62 59	No. 6	F., G. F.
				Padman	22.9	_	27		(0		PC
				Redman	21.6		26		62	No. 5	F., G.
Necessary differ	ence-	-1.0 bu	ishel.	Saunders	21.6	=	27 26	-	63	No. 6 No. 5 No. 5	F., G. F., G. F., G.
Necessary differ	ence-	-1.0 bu	ishel.	Saunders	21.6			_		No. 5 No. 5	
	ence-	-1.0 bu	ishel.	BILLY H. O	21.6 . REE	D, SHEL	L LAKI	8.6		No. 5	
				BILLY H. O	21.6 20.3 18.7	D, SHEL 98 94	L LAKE 35 32	8.6	63 61 59	No. 5 No. 6	
4B	15	6	A	BILLY H. O	21.6 REE 20.3	D, SHEL 98	L LAKI	8.6	63	No. 5 No. 6	
4B	15	6	A	BILLY H. O Thatcher Lee Redman	21.6 20.3 18.7 22.4	D, SHEL 98 94 92	L LAKI 35 32 32	8.6 8.2 8.0	63 61 59 60	No. 5	F., G. F., G. F., G. F., G. F., G.
4B	15 rence-	6 –1.7 bu	A ashels.	BILLY H. O Thatcher Lee Redman Saunders CLIFTON A	21.6 20.3 18.7 22.4 21.6	D, SHEL 98 94 92 97	L LAKE 35 32 35 32 35 32	8.6 8.2 8.0 8.4	63 61 59 60 60	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G F., G
4B	15	6	A	BILLY H. O Thatcher Lee Redman Saunders CLIFTON A Thatcher	21.6 20.3 18.7 22.4 21.6 BRO 19.6	D, SHEL 98 94 92 97	L LAKE 35 32 35 32 35 32	8.6 8.2 8.0 8.4	63 61 59 60 60	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G F., G
4B	15 rence-	6 –1.7 bu	A ashels.	BILLY H. O Thatcher Lee Redman Saunders  CLIFTON A Thatcher Lee Redman	21.6 20.3 18.7 22.4 21.6 BRO 19.6 17.8 17.0	D, SHEL 98 94 92 97	L LAKE 35 32 35 32 35 32	8.6 8.2 8.0 8.4	63 61 59 60 60 49 52 49	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G F., G
4BNecessary differ	15 rence-	6 -1.7 bu	A ashels.	BILLY H. C Thatcher Lee Redman Saunders  CLIFTON A Thatcher Lee Redman Saunders	21.6 20.3 18.7 22.4 21.6 BRO 19.6 17.8 17.0 16.4	D, SHEL 98 94 92 97	L LAKE 35 32 35 32 35 32	8.6 8.2 8.0 8.4	63 61 59 60 60 60	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G F., G
4BNecessary differ	15 rence-	6 -1.7 bu	A ashels.	BILLY H. C Thatcher	21.6  20.3 18.7 22.4 21.6  BRO 19.6 17.8 17.0 16.4 es.	D, SHEL 98 94 92 97 WN, CAI	L LAKE 35 32 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 49 52 49	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G F., G
4B4B	15 rence	6 -1.7 bu	A A A A A A A A A A A A A A A A A A A	BILLY H. C Thatcher Lee Redman Saunders  CLIFTON A Thatcher Lee Redman Saunders Lee Redman Lee Redman Lee Lee Redman Lee Redman Lee Lee Redman Lee Lee Redman Lee Redman Lee Redman Lee Redman Lee Redman Lee	21.6  2. REE 20.3 18.7 22.4 21.6  BRO 19.6 17.8 17.0 16.4 es.	D, SHEL 98 94 92 97 WN, CAI	L LAKE 35 32 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 60 49 52 49 50	No. 5 No. 6 No. 6 No. 5	F., G. F., G. F., G. F., F.
4B4B	15 rence-	6 -1.7 bu 7	A ashels.	BILLY H. C Thatcher Lee Redman Saunders CLIFTON A Thatcher Lee Redman Saunders between varietie ELMER PAC Thatcher Lee Lee Lee Lee Lee Lee Lee Lee Lee	21.6 20.3 18.7 22.4 21.6 . BRO 19.6 17.0 16.4 es. . ZAY, 21.2 20.3	D, SHEL 98 94 92 97 WN, CAI	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 60 49 52 49 50	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed Feed No. 6 No. 6	F., G. F., G. F., G. F., F.
4B4B4B4B4B4B4B4B4	15 rence	6 -1.7 bu 7	A A A A A A A A A A A A A A A A A A A	BILLY H. O Thatcher	21.6 20.3 18.7 22.4 21.6 . BRO 19.6 17.0 16.4 es. . ZAY, 21.2 20.3	D, SHEL 98 94 92 97 WN, CAI	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 60 49 52 49 50	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed	F., G. F., G. F., G. F., F.
4B	15 rain y	6 -1.7 bu 7 rield dif	A shels.  A fference	BILLY H. C Thatcher Lee Redman Saunders CLIFTON A Thatcher Lee Redman Saunders between varietie ELMER PAC Thatcher Lee Lee Lee Lee Lee Lee Lee Lee Lee	21.6 20.3 18.7 22.4 21.6 BRO 17.8 17.0 16.4 es. 22.4 21.2 20.3 23.7 21.8	D, SHEL 98 94 92 97 WN, CAI	L LAKH 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 60 49 52 49 50 55 55 58	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F.
4B Necessary differ 4B No significant g 4A	15 rence— 15 rain y 15	6  -1.7 bu 7  rield dif	A shels.  A fference  A	BILLY H. O Thatcher Lee Redman Saunders  CLIFTON A Thatcher Lee Redman Saunders  ELMER PAC Thatcher Lee Redman Saunders between varietie Redman Saunders Lee Redman Redman Saunders Lee Redman Saunders Detween varietie	21.6  20.3 18.7 22.4 21.6  . BRO 19.6 17.8 17.0 16.4 28.  ZAY, 21.2 20.3 23.7 21.8 28.	D, SHEL 98 94 92 97 WN, CAI	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4	63 61 59 60 60 60 49 52 49 50 55 58 58	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F. F. F., F. F., G., I. F., G., I.
4A	15 rain y	6 -1.7 bu 7 rield dif	A shels.  A fference	BILLY H. C Thatcher Lee	21.6 20.3 18.7 22.4 21.6 BRO 19.6 17.8 17.0 16.4 21.2 20.3 23.7 21.8 25.8 DALY 47.3	D, SHEL 98 94 92 97 WN, CAN — — — PADDOC	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4 9 ———————————————————————————————————	63 61 59 60 60 60 49 52 49 50 59 55 58	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F. F. F., F. F., G., I. F., G., I.
4B Necessary differ 4B No significant g	15 rence— 15 rain y 15	6  -1.7 bu 7  rield dif	A shels.  A fference  A	BILLY H. O Thatcher Lee	21.6 20.3 18.7 22.4 21.6 19.6 17.8 17.0 16.4 22.AY, 21.2 20.3 23.7 21.8 22.8 247.3 48.0 44.2	D, SHEL 98 94 92 97 WN, CAN — — — PADDOC	L LAKE 35 32 35 32 NWOOD	8.6 7.4 8.8 8.6 7.8 8.8	63 61 59 60 60 60 49 52 49 50 55 85 8	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed Foed No. 6 No. 6 No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F. F. F., F. F., G., I. F., G., I.
4B Necessary differ 4B No significant g 4A No significant g	15 15 15 15 15 15 15	6 -1.7 bu 7 rield diff 9 rield diff	A shels.  A fference  A	BILLY H. C Thatcher Lee Redman Saunders  CLIFTON A Thatcher Lee Redman Saunders  between varietie  ELMER PAC Thatcher Lee Redman Saunders between varietie  PAT D. Thatcher Lee Redman Saunders Saunders Saunders Saunders Saunders Saunders Saunders Saunders	21.6  20.3 18.7 22.4 21.6  19.6 17.8 17.0 16.4 es.  ZAY, 21.2 20.3 23.7 21.8 es.  DALY 47.3 48.0 44.2	D, SHEL 98 94 92 97 WN, CAN — — — PADDOC	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4 ———————————————————————————————————	63 61 59 60 60 60 52 49 50 55 58 58 61 59	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F. F. F., F. F., G., I. F., G., I.
4B Necessary differ 4B No significant g 4A No significant g	15 15 15 15 15 15 15	6 -1.7 bu 7 rield diff 9 rield diff	A shels. A fference A fference	BILLY H. C Thatcher	21.6  20.3 18.7 22.4 21.6  BRO 19.6 17.8 17.0 16.4 es ZAY, 21.2 20.3 23.7 21.8 es DALY 47.3 48.0 44.2 22.5.	D, SHEL 98 94 92 97 WN, CAN — — — — — — — — — — — — — — — — — — —	L LAKE 35 32 35 32 35 32 35 32 35 32 38 32 38 38 37 38 37 38 37 38	8.6 8.2 8.0 8.4 0 — — — — — — — — — — — — — — — — — — —	63 61 59 60 60 60 49 52 49 50 55 85 8	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed Foed No. 6 No. 6 No. 6 No. 6 No. 6	F., G. F., G. F., G. F., F.
4B	15 15 15 15 15 15 15	6 -1.7 bu 7 rield diff 9 rield diff	A shels. A fference A fference	BILLY H. O Thatcher Lee Redman Saunders CLIFTON A Thatcher Lee Redman Saunders Saunders ELMER PAC Thatcher Lee Redman Saunders between varietie PAT D. Thatcher Lee Redman Saunders between varietie PAT D. Thatcher Lee Redman Saunders between varietie PAT D. Thatcher Lee Redman Saunders between varietie RERY N. ROMA	21.6  20.3 18.7 22.4 21.6  . BRO 19.6 17.8 17.0 16.4 22.2 20.3 23.7 21.8 23.7 21.8 24.2 42.2 24.2 25.	D, SHEL 98 94 92 97 WN, CAN — — — — — — — — — — — — — — — — — — —	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4 9.2 8.6 7.4 8.8 9.2	63 61 59 60 60 60 49 52 49 50 55 58 61 60 60	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6 No. 6 No. 5 No. 5 No. 5	F., G., F., G., F., G., I. F., G.
4B Necessary differ 4B No significant g 4A No significant g	15 15 15 15 15 15 15 rrain y 15	6 -1.7 bu 7 rield diff 9 rield diff 10	A shels.  A fference  A fference  HAF	BILLY H. C Thatcher	21.6  20.3 18.7 22.4 21.6  . BRO 19.6 17.8 17.0 16.4 22.2 20.3 23.7 21.8 23.7 21.8 24.2 42.2 24.2 25.	D, SHEL 98 94 92 97 WN, CAN — — — — — — — — — — — — — — — — — — —	L LAKE 35 32 35 32 NWOOD	8.6 8.2 8.0 8.4 0 — — — — — — — — — — — — — — — — — — —	63 61 59 60 60 60 52 49 50 55 58 58 61 60	No. 5 No. 6 No. 6 No. 5 Feed Feed Feed Feed No. 6 No. 6 No. 6 No. 6 No. 5 No. 5 No. 5	F., G., F., G., I.

## Wheat Pool District 15—Continued

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Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw strength	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
3F	15	11	A	ALBERT P. Thatcher Lee Redman	22.7 17.2 19.4	ISON, G	ARRICI	<u> </u>	57 53 57	No. 5 No. 6 No. 5 No. 5	F., Bl., I. F., Bl., I. F., Bl., I.
Necessary differ	rence-	-2.2 bu	shels.	Saunders	20.5	_	-	_	58	No. 5	F., Bl., I.
Te	ests D	discarde	ed on A	ecount of Dan	nage by	Drough	t, Pests,	Frost, o	r Other	Causes	
3B	15	8	A	Ronald H. Per	kins, Sl	hellbrook.					
			V	VHEAT P	OOL	DIST	RICT	16			
20	16	,		DELBERT W		NSCH, R	ADISSO				E DI I
3G	16	1	A	Thatcher	29.7	=	_	8.4 9.0	56 54	No. 5 No. 6	F., Bl., I. F., Bl., I. F., Bl., I.
				Saunders	32.1		_	8.6 9.0	57 57	No. 5 No. 5	F., Bl., I. F., Bl., I.
No significant g	rain y	yield dif	ference l								
20	16	-		FORREST G							D DI
3G	16	2	A	Thatcher	8.6	112 114	42 42	8.4 8.2	60 59	4 Nor. 4 Nor.	F., Bl. F., Bl.
				Saunders	12.0	112 112	43 42	10.0 8.6	60 62	4 Nor. 4 Nor.	F., Bl. F., Bl. F., Bl.
Damaged by bi	rds. Y	lields no	ot used i	n zone summar	ies.			4			
				MORRIS V							
3G	16	3	С	Thatcher	49.5	96 96	32 37	=	62 62	No. 5 No. 5	F. F.
				Redman Saunders	48.1	94 94	37 35 33	=	62 62	No. 5 No. 5 4 Nor	F. F., I. F.
Necessary differ	rence-	-3.5 bu	shels.	Dudinacio	40.0		33		02	7 1101	
				J. LEONAF	RD A.	PERRON.	EDAM	1			
3E	16	4	A	Thatcher		_	37 38	9.2 9.6	58	No. 6 Feed	F. F.
				Redman	32.6	_	39 37	9.8	54 57 59	Feed	F. F.
No significant g	grain ;	yield di	fference	Saunders between varieti		_	31	8.6	39	No. 5	r.
				LANO I	R. HIN	DE, WAS	ECA				
3E	16	5	A	Thatcher	23.1	100	31	8.6	61	No. 6	F.
				LeeRedman	24.4	98 97	31 31	8.2 8.8	59 61	Feed No. 6	F. F.
Necessary differ	rence-	-2.0 bu	shels.	Saunders	24 7	98	31	8.4	61	No. 5	F.
	-		KE	NNETH T. AI	NDERS	EN. LLO	VDMIN	STER	-	-	
3E	16	6	A	Thatcher	25.4	108	42	10.0	58	4 Nor.	F., G., I.
				Lee Redman	18.1	113 106	36 42	10.0 10.0	57 57	No. 5 4 Nor	F., G., I. F., G., I F., G., I
Necessary differ	rence-	_3 0 hr	shels	Saunders	26.8	110	42	10.0	59	4 Nor.	F., G., I.
	·	3.7 00		T ADMOVD	BATTOT	OTT DAD	ADTON	****			
4B	16	7	A A	H. ARNOLD Thatcher		H, PAR	ADISE .	HILL	63	2 Nor	S.F. I.
	-0		**	Lee	20.8	-	_	-	63 62	2 Nor. 3 Nor. 3 Nor.	S.F., I. F., G., I. S.F., G., I S.F., G.,
			0.0	Redman Saunders	23.6	=	=	=	62	3 Nor.	S.F., G.,
No significant g	grain	yield di	fference								
917	10	0		HARRY L. I			CE LAI			P 1	P
3E	10	8	A	Thatcher	12.2	102 104	27 25	8.4	52 52 55	Feed Feed	F. F.
The state of the s				Redman Saunders	23.0	102 102	30 28	9.4 9.4	55 56	Feed Feed	F. F. F
Necessary differ	rence-	-2.6 bu	shels.								11 11 1
				TARAS H		LIW, GL	ASLYN				
4B	16	9	A	Thatcher	12.0		=	=	56 54	No. 5 No. 6	F., G., I F., G. F., G., I.
				Redman Saunders	15.1	_	_		54 55 57	No. 6 No. 5 No. 5	F., G., I. F., G., I.
Necessary differ	rence-	-1.7 bu	shels.	Saunders	10.4		- TOA		31	140. 3	1., G., I.

#### Wheat Pool District 16-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test desig- nation	Varieties	Yield bus. per acre	Days seed- ing to ripening	Plant height in inches	Straw	Lbs. per meas- ured bushel	Com- mercial grades	Grading remarks
				GEORGE	WILLI	CK. MIL	DRED				
4B	16	10	A	Thatcher	34.6	_	36	9.0	61	No. 5	F.
				Lee	31.5	-	35	9.0	60	No. 6	F.
				Redman	34.5		37	9.0	61	No. 6	F.
				Saunders	36.2	_	35	9.0	62	No. 5	F. F.
Necessary differ	rence-	9 bus	hel.	Dadiideioiiiiii	50.2		-	7.0	02	110.5	•
		-	-	CARL HA	NSEN	DORIN	TOSH		1.1 2.1		
4B	16	11	A	Thatcher	23.3		31	10.0	58	Feed	F., G.
,				Lee	15.0	_	29	9.2	57	Feed	F. G.
				Redman	16.2	_	29	10.0	57	Feed	F., G. F., G.
				Saunders		_	28	8.8	58	No. 6	F., G.
Necessary diffe	rence-	-2.6 bu	shels.	Sauriders	13.1		20	0.0	50	140. 0	1., G.
T	acte D	icoard	A no be	ecount of Dan	nage h	Drough	t Pasts	Frost o	r Other	Canses	
3E	16	8	B	Roderick M. N				,, 0	2 0 01101	044505	
3G	16	10	B	Harvey K. Sal							
	10		D	Taur vey 14. Dai	iocury,		•				



Variety Test Supervisor William Hope of Smoky Burn.

## BARLEY TESTS

A total of 71 barley tests were conducted in 1950 and these were distributed throughout all Cereal Variety Zones with the exception of 1C and 2C in the extreme southwest .

#### DESCRIPTION OF VARIETIES

**Hannehen** is a two-rowed, rough awned variety originated by selection from Hanna at the Swedish Plant Breeding station at Svalof. It was introduced into United States in 1904. Hannchen is a late maturing variety and has short, mid-weak straw. It is susceptible to rusts and smuts. Hannchen is satisfactory for combining and is eligible for top two-row grades.

**Montealm** is a six-rowed, smooth awned, mid-late, blue seeded variety which resembles O.A.C. 21 in many respects. It was originated at MacDonald College, Quebec, from a cross between Black Barbless and a blue Manchurian selection. Montcalm is susceptible to stem and leaf rust but is moderately resistant to covered smut. It has comparatively weak straw and is poor for straight combining, but has good malting quality and is eligible for grade 1 C.W. 6 Row.

Moore is a new six-rowed, smooth awned variety bred at the Wisconsin Agricultural Experiment Station in co-operation with the United States Department of Agriculture. Its parents are Wisconsin 38, Chevron and Olli. Moore is late maturing and has strong straw. It is resistant to stem rust and rootrot. At the time of this report Moore had not been licensed for sale in Canada. As it had no legal grade status in Canada, it was necessary, for comparison purposes in this report, to limit the grades of Moore to 1 Feed as a maximum.

Vantage is a six-rowed, smooth awned, medium late variety originated at the Brandon Experimental Farm from the cross (Newal X Peatland) X Plush. It has strong straw and is suitable for straight combining. Vantage is resistant to stem rust but is susceptible to leaf rust, loose smut and covered smut. It is eligible for the feed grades only.

#### GRAIN YIELD

An average of all tests shows that **Vantage** produced the highest yields followed closely by **Montcalm** and **Hannchen**. **Moore** was low in yield on a provincial average basis. Vantage gave its best performance compared to the other varieties in the open plains area of the province (Cereal Variety Zones 1A to 2F). In cereal variety zones throughout this area, Vantage generally ranked first or second in yield. It also placed second in Zones 4A and 4B. It was third in Zone group 3A and 3B, 3C, 3D, 3E and 3G.

**Montealm** placed second in yield on an average basis. It outyielded the other varieties in Zones 2A, 3A and 3B, and 3C. It ranked second in two zones, third in one, and fourth in two. Generally, Montcalm made its best showing in the south-east and east-central areas.

**Hannchen** outyielded the other varieties in two zones, placed second in two, third in two, and fourth in two.

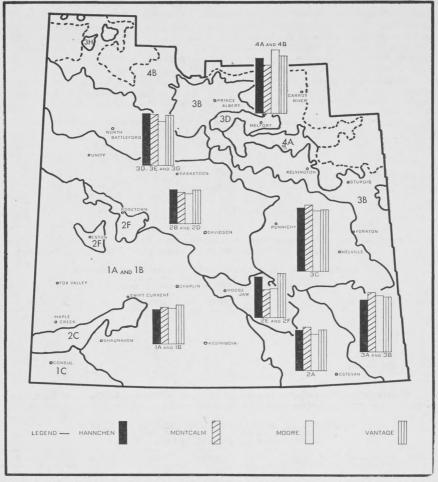
Moore ranked first in Zone group 4A and 4B. It placed second in 3A and 3B. In all other areas it yielded third or fourth.

# TABLE NO. 24.—AVERAGE YIELDS IN BUSHELS PER ACRE SUMMARIZED BY CEREAL VARIETY ZONES OR GROUPED ZONES

Cereal Variety Zone	No. of Satisfactory Tests	Hannchen	Montcalm	Moore	Vantage	Necessary Difference* in Bushels
1A and 1B	. 8	33.2	35.6	34.4	37.8	5.5
2A	. 6	39.3	42.1	35.7	39.6	4.6
2B and 2D	. 8	33.0	30.3	29.0	32.7	3.8
2E and 2F	. 4	39.6	27.0	28.0	42.8	10.5
3A and 3B	. 8	50.7	57.8	54.4	53.3	4.9
3C	. 8	61.6	64.2	58.6	59.4	N.S.
3D, 3E, and 3G	. 7	50.3	49.4	42.6	48.2	5.3
4A and 4B	. 3	53.6	46.6	61.6	55.4	N.S.

\*Necessary Difference.—Since yielding ability of varieties cannot be measured with absolute accuracy, small differences have no significance. Unless the difference in yield of two varieties is greater than the necessary difference as shown in the tables, little confidence can be placed in the superiority of one variety over the other in that particular zone group.

N.S.-No significant grain yield difference between varieties.



The above map indicates the areas in which barley tests were grouped for analysis. The histograms show comparative yields of the different varieties in different parts of the province.

#### Past Performance and Official Recommendations

Vantage was introduced for commercial production in 1948, and since that time it has become a popular variety throughout Saskatchewan. Taking the province as a whole, Vantage outyielded the other varieties in 1950. In 1948 it placed third out of four varieties, but in 1947 it ranked second out of six. It is officially recommended for use throughout practically the entire province. The only zones for which it is not recommended are 1B, 1C, 2C, 2F, 3H and 4B.

**Montealm** yielded comparatively well throughout most areas under the excellent moisture conditions which prevailed during 1950. It gave relatively poor results in Wheat Pool tests during 1946, being outyielded by Plush, Titan and Tregal, in every area. In the tests conducted during 1945, however, Montcalm was used only in the zones designated by numbers 3 and 4, and generally yielded second or third out of five varieties. Only Plush consistently outyielded it during that year. Montcalm is now officially recommended for general use or for malting purposes in all cereal variety zones designated by the numbers 3 and 4, with the exception of 3G. It has entirely succeeded O.A.C. 21 as the standard malting variety in Saskatchewan.

Until 1950, **Hannehen** had not been used in Wheat Pool tests since 1935. The other varieties used at that time have long since been dropped from the recommended list, but Hannchen continues to maintain considerable popularity among plant scientists and farmers in Saskatchewan. In the 1950 tests Hannchen gave a variable yield performance but compared favorably with the other varieties on a provincial average basis. While not officially recommended for any zones except 3D and 3F, Hannchen is considered to have a place in other localized areas because it produces good yields of high quality barley for which there is a steady demand.

**Moore** was tested for the first time in 1950. Its general performance was not outstanding, but further tests will be necessary before definite recommendations can be made. Moore is not licensed for commercial production and sale in Canada.

TABLE NO. 25.—AVERAGE NUMBER OF DAYS FROM SOWING TO RIPENING SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Hannchen	Montcalm	Moore	Vantage
1A and 1B	93.6	91.6	92.3	92.0
2A	90.0	90.8	90.2	90.0
2B and 2D	104.0	104.8	104.2	104.2
2E and 2F	91.5	98.0	96.5	98.0
3A and 3B	91.7	90.2	90.5	89.7
3C	91.7	92.0	92.3	93.6
3D, 3E, and 3G	103.6	103.6	104.2	104.8
4A and 4B	90.5	91.5	91.5	90.0

On an average basis **Hannchen** was slightly earlier than the other varieties. There was very little difference in the performances of **Montealm**, **Moore**, and **Vantage**.

TABLE NO. 26,—AVERAGE STRAW STRENGTH OF PLANTS ON THE BASIS 10 (STRONG)—0 (WEAK) SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Hannchen	Montcalm	Moore	Vantage
1A and 1B	8.1	8.2	8.3	8.2
2A	9.2	8.6	9.1	9.2
2B and 2D.	8.7	8.9	9.2	9.2
2E and 2F	9.5	9.9	10.0	9.5
3A and 3B	5.1	7.8	8.7	9.4
3C	7.2	8.2	9.1	9.2
3D, 3E, and 3G	8.3	9.5	9.2	9.7
4A and 4B	5.2	8.5	8.5	8.0

**Vantage** and **Moore** led in strength of straw, with **Montealm** third and **Hannehen** fourth. Hannchen proved weaker than the other varieties in every zone except 2A.

TABLE NO. 27.—AVERAGE NECK STRENGTH OF PLANTS ON THE BASIS 1 (STRONG)—3 (WEAK) SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Hannchen	Montcalm	Moore	Vantage
1A and 1B	2.0	2.0	2.1	1.7
2A	2.0	1.9	1.5	1.3
2B and 2D	1.8	1.7	1.6	1.4
2E and 2F	2.5	1.9	2.0	1.3
3A and 3B	2.2	1.8	1.5	1.1
3C	1.9	2.0	1.6	1.7
3D, 3E, and 3G	1.9	2.0	1.4	1.1
4A and 4B	1.7	1.6	1.5	1.5

Vantage generally proved superior in neck strength. It ranked first in six zones, tied for first place in one, and placed second in the remaining zone. Moore was second on an average basis, with Montealm third, and Hannehen fourth.

TABLE NO. 28.—AVERAGE WEIGHT PER MEASURED BUSHEL SUMMARIZED BY CEREAL VARIETY ZONES

Cereal Variety Zone	Hannchen	Montcalm	Moore	Vantage
1A and 1B	48.4	45.7	44.2	45.2
2A	52.5	48.5	47.5	48.0
2B and 2D	51.0	46.5	45.6	45.7
2E and 2F	50.0	46.0	45.3	46.3
3A and 3B	48.6	45.6	44.9	46.9
3C	52.5	48.8	48.0	48.6
3D, 3E, and 3G.	51.3	44.6	46.0	45.4
4A and 4B	49.7	45.7	46.3	46.3

**Hannchen** outweighed the other varieties in every zone, exceeding **Moore**, the fourth place variety by from four to six pounds in most cases. **Montcalm** and **Vantage** were approximately equal on an average basis, sharing second and third places.

#### Commercial Grades

Commercial grades for each variety are shown on a percentage basis in the zone summaries. As **Hannehen** is a two-row variety and **Montealm** is eligible for the six-row malting grades, a comparison between these two cannot be made satisfactorily. **Vantage** is eligible for the feed grades only, and **Moore**, which has not been licensed, is considered as a feed variety for purposes of comparison.

#### SUMMARIZATION ACCORDING TO CEREAL VARIETY ZONES

TABLE NO. 29.—SUMMARIZED RESULTS FOR ZONE GROUP 1A AND 1B (8 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
field in bushels per acre	33.2	35.6	34.4	37.8
Days from seeding to ripening	93.7	91.7	92.3	92.0
Height of plants in inches	24.0	28.7	28.6	26.7
Straw strength (maximum of 10)	8.1	8.2	8.3	8.2
Neck strength (1—strong, 2—medium, 3—weak)		2.0	2.1	1.7
Bushel weight in pounds	48.4	45.7	44.2	45.2
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R				
2 C.W.2R or 2 C.W.6R	41.7	25.0		
3 C.W.2R or 3 C.W.6R	25.0	25.0		1
1 Feed	8.3	25.0	58.3	75.0
2 Feed	8.3	8.3	16.7	8.3
3 Feed.	16.7	16.7	25.0	16.7

Necessary difference-5.5 bushels.

Table No. 29. Yield differences between the varieties were not significant. **Vantage**, however, exceeded the other varieties in this respect, and was superior in neck strength. It was somewhat lower in bushel weight than Hannchen but proved quite satisfactory in other characteristics.

**Montealm** was second in yield and bushel weight, and exceeded the other varieties in height.

 $\boldsymbol{Moore}$  placed third in yield. It was somewhat lower than the other varieties in bushel weight.

**Hannchen** was comparatively low in yield, late in ripening and short in straw. It excelled in bushel weight.

TABLE NO. 30.—SUMMARIZED RESULTS FOR ZONE 2A (6 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
Viold in bushels now one	39.3	42.1	35.7	39.6
Yield in bushels per acre				
Days from seeding to ripening	90.0	90.8	90.2	90.0
Height of plants in inches	28.8	32.8	33.8	29.6
Straw strength (maximum of 10)	9.2	8.6	9.1	9.2
Neck strength (1—strong, 2—medium, 3—weak)		1.9	1.5	1.3
Bushel weight in pounds	52.5	48.5	47.5	48.0
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R	16.7	16.7		
2 C.W.2R or 2 C.W.6R		50.0		-
3 C.W.2R or 3 C.W.6R				-
1 Feed		16.7	83.3	83.3
2 Feed		16.6	16.7	16.7
3 Feed				

Necessary difference-4.6 bushels.

Table No. 30. **Montealm** was high in yield, exceeding Moore by more than the difference necessary for significance. Montealm was slightly weaker in straw than the other varieties, but proved satisfactory in other characteristics.

**Vantage** placed second in yield. It excelled in neck strength and tied with Hannchen for superiority in straw strength and earliness.

**Hannehen** was superior in bushel weight. It ripened early and produced strong straw. Compared to the other varieties, it was slightly weaker in neck strength and shorter in straw.

**Moore** was low in yield and bushel weight. It excelled in height and was satisfactory in other characteristics.

TABLE NO. 31.—SUMMARIZED RESULTS FOR ZONE GROUP 2B AND 2D (8 satisfactory tests)

		Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre		33.0	30.3	29.0	32.7
Days from seeding to ripening		104.0	104.8	104.2	104.2
Height of plants in inches		26.3	30.6	29.7	28.7
Straw strength (maximum of 10)		8.7	8.9	9.2	9.2
Neck strength (1-strong, 2-med	ium, 3—weak)	1.8	1.7	1.6	1.4
Bushel weight in pounds		51.0	46.5	45.6	45.7
Commercial grades in percentage:	1 C.W.2R or 1 C.W.6R	10.0			
	2 C.W.2R or 2 C.W.6R	30.0	10.0		
	3 C.W.2R or 3 C.W.6R	30.0	40.0	-	
	1 Feed	30.0	30.0	70.0	70.0
	2 Feed		10.0	10.0	10.0
	3 Feed	-	10.0	20.0	20.0

Necessary difference—3.9 bushels.

Table No. 31. **Hannchen** outyielded the other varieties and was high in bushel weight. It proved slightly weak in straw and neck, and was comparatively short in straw.

**Vantage** was practically equal to Hannchen in yield, and excelled in straw and neck strength. It proved inferior to Hannchen and Montcalm in bushel weight.

**Montcalm** placed third in yield and was slightly later than the other varieties in ripening. It was taller than the other varieties but proved slightly inferior to Moore and Vantage in straw and neck strength. It exceeded these varieties in bushel weight.

**Moore** was low in yield and bushel weight. Its strength of straw and neck was good and Moore proved satisfactory in other characteristics.

TABLE NO. 32.—SUMMARIZED RESULTS FOR ZONE GROUP 2E AND 2F (4 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre	39.6	27.0	28.0	42.8
Days from seeding to ripening	91.5	98.0	96.5	98.0
Height of plants in inches	23.5	28.0	26.5	26.0
Straw strength (maximum of 10)	9.5	9.9	10.0	9.5
Neck strength (1—strong, 2—medium, 3—weak)	2.5	1.9	2.0	1.3
Bushel weight in pounds		46.0	45.3	46.3
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R				
2 C.W.2R or 2 C.W.6R	25.0	25.0		
3 C.W.2R or 3 C.W.6R	25.0			
1 Feed	50.0	25.0	50.0	50.0
2 Feed		25.0	25.0	25.0
3 Feed		25.0	25.0	25.0

Necessary difference-10.5 bushels.

Table No. 32. **Vantage** outyielded the other varieties, exceeding Montcalm and Moore by differences greater than the necessary difference for the zone. It excelled in neck strength, and proved satisfactory in straw strength and bushel weight.

**Hannehen** placed second in yield, excelled in bushel weight and ripened somewhat earlier than the other varieties. It was short in straw and inferior in neck strength.

**Moore** was third in yield. It was low in bushel weight and somewhat weaker than Vantage in neck strength. It produced strong straw and ripened earlier than Montcalm and Vantage.

**Montealm** was low in yield and failed to show any outstanding characteristics in this zone.

TABLE NO. 33.—SUMMARIZED RESULTS FOR ZONE GROUP 3A AND 3B (8 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre	50.7	57.8	54.4	53.3
Days from seeding to ripening	91.7	90.2	90.5	89.7
Height of plants in inches	36.1	41.8	40.8	37.5
Straw strength (maximum of 10)	5.1	7.8	8.7	9.4
Neck strength (1—strong, 2—medium, 3—weak)		1.8	1.5	1.1
Bushel weight in pounds	48.6	45.6	44.9	46.9
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R	12.5			
2 C.W.2R or 2 C.W.6R	12.5	12.5		
3 C.W.2R or 3 C.W.6R	37.5	25.0		
1 Feed	25.0	12.5	62.5	87.5
2 Feed	12.5	25.0		12.5
3 Feed		25.0	37.5	

Necessary difference-4.9 bushels.

Table No. 33. **Montealm** was high in yield, exceeding Hannchen by a difference which was significant. It produced long straw of medium strength, and ripened comparatively early.

**Moore** ranked second in yield and proved satisfactory in most other characteristics. It was somewhat low in bushel weight, however.

Vantage was third in yield, but ripened early and excelled in strength of straw and neck.

**Hannehen** outweighed the other varieties in pounds per measured bushel, but was inferior in yield, height, straw strength, and neck strength. In addition, it ripened later than the other varieties.

TABLE NO. 34.—SUMMARIZED RESULTS FOR ZONE 3C (8 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre	61.6	64.2	58.6	59.4
Days from seeding to ripening	91.7	92.0	92.3	93.6
Height of plants in inches	31.8	39.0	37.6	37.0
Straw strength (maximum of 10)	7.2	8.2	9.1	9.2
Neck strength (1—strong, 2—medium, 3—weak)	1.9	2.0	1.6	1.7
Bushel weight in pounds	52.5	48.8	48.0	48.6
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R				
2 C.W.2R or 2 C.W.6R	62.5	37.5		
3 C.W.2R or 3 C.W.6R	12.5	12.5		
1 Feed	25.0	37.5	87.5	87.5
2 Feed			12.5	12.5
3 Feed		12.5		

No significant grain yield difference between varieties.

Table No. 34. **Montealm** led the other varieties in yield, although the differences between the varieties in this zone were not significant. Montealm placed second to Hannchen in bushel weight but had less strength of straw and neck than Moore and Vantage. It was taller than the other varieties.

**Hannehen** excelled in bushel weight and ripened comparatively early. It was short and weak in straw, and placed third in neck strength.

**Vantage** produced strong straw and gave an average performance in most other characteristics. It ripened later than the other varieties.

 $\boldsymbol{Moore}$  was low in bushel weight, but had comparatively strong straw and excelled in neck strength.

TABLE NO. 35.—SUMMARIZED RESULTS FOR ZONE GROUP 3D, 3E AND 3G (7 satisfactory tests)

	Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre	50.3	49.4	42.6	48.2
Days from seeding to ripening	103.6	103.6	104.2	104.8
Height of plants in inches	26.2	33.8	31.8	30.7
Straw strength (maximum of 10)	8.3	9.5	9.2	9.7
Neck strength (1—strong, 2—medium, 3—weak)	1.9	2.0	1.4	1.1
Bushel weight in pounds	51.3	44.6	46.0	45.4
Commercial grades in percentage: 1 C.W.2R or 1 C.W.6R				
2 C.W.2R or 2 C.W.6R	57.1	28.6		
3 C.W.2R or 3 C.W.6R	28.6	28.6		
1 Feed		14.3	57.1	57.1
2 Feed		14.3	28.6	28.6
3 Feed	14.3	14.2	14.3	14.3

Necessary difference—5.3 bushels.

Table No. 35. **Hannehen** was high in yield, exceeding Moore by a difference which was greater than the necessary difference for the zone. It also excelled in bushel weight and ripened early. Hannehen was shorter and weaker in straw than the other varieties, and failed to equal Moore and Vantage in neck strength.

**Montcalm** placed second in yield, ripened early, and exceeded the other varieties in height. It had fairly good straw strength. Montcalm was somewhat lower than the other varieties in bushel weight and proved inferior in neck strength.

Vantage placed third in yield and was slightly late in ripening. It excelled in straw and neck strength.

**Moore** was outyielded significantly by all other varieties. It placed second to Hannchen in bushel weight, and proved satisfactory in straw strength and neck strength.

## TABLE NO. 36.—SUMMARIZED RESULTS FOR ZONE GROUP 4A AND 4B (3 satisfactory tests)

		Hannchen	Montcalm	Moore	Vantage
Yield in bushels per acre  Days from seeding to ripening  Height of plants in inches		53.6 90.5 30.7	46.6 91.5 34.7	61.6 91.5 34.7	55.4 90.0 33.0
Straw strength (maximum of 10) Neck strength (1—strong, 2—med Bushel weight in pounds	ium, 3—weak)	5.2 1.7 49.7	8.5 1.6 45.7	8.5 1.5 46.3	8.0 1.5 46.3
Commercial grades in percentage:	1 C.W.2R or 1 C.W.6R 2 C.W.2R or 2 C.W.6R 3 C.W.2R or 3 C.W.6R	33.3	33.3		=
	1 Feed		$\frac{33.3}{33.4}$	66.7 33.3	66.7

No significant grain yield difference between varieties.

Table No. 36. Although **Moore** outyielded the other varieties in this zone by a wide margin, it should be noted that the yield differences were not significant. It should also be noted that only three satisfactory tests were conducted in the zone group, and these may not be representative of the entire area. In addition to its high yield, Moore gave a satisfactory performance in other characteristics.

Vantage and Moore were equal in bushel weight and neck strength. Vantage ripened early and gave generally good results.

**Hannchen** showed somewhat better bushel weight than the other varieties. It ripened earlier than Montcalm and Moore but had comparatively short, weak straw. It was slightly inferior in neck strength.

**Montealm** had lower bushel weight than Moore and yielded somewhat less. In other characteristics, however, these two varieties were practically equal.



Sheaves from the variety test of Donald Polvi, Wapella.

## Individual Summarized Results of All Tests—Barley

				WHE	AT P	OOL D	ISTR	RICT 1				
Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw Strength	Neck Strength	Lbs. per meas- ured bushel		Gradin R'm'rk
				A. J.	AMES	ULRICH	wooi	DLEY		-		
2A	1	5	В	Hannchen Montcalm Moore	26.9 33.0 24.3 26.3	Ξ	=	=	=	50 48 47	2 C.W. 2 2 C.W.6F 1 Feed	R— R— W. S
Necessary	differe	nce-4	4 bushel	Vantage	20.3			- n		47	1 Feed	_
	-			ADAN	1 WE	INRAUCE	. TOR	QUAY		10000		
2A	1	6	В	Hannchen Montcalm Moore	28.6 24.0 21.7	86 86 86	32 35 37	10.0 9.8 9.8	2.3 2.3 1.5	54 49 49	1 C.W.2F 2 C.W.6F 1 Feed	
Necessary	differe	nce_3	3 hushe	Vantage	24.3	85	30	9.8	1.0	50	1 Feed	-
	uniere	1100-3	.J Dusile.						7			
3A	1	10	В	MUR Hannchen	<b>RAY</b> 1	<b>D. CLAR</b> 99	K, CAR	3.3	3.0	45	2 Feed	_
				Montcalm	71.4	99	40	8.0	1.8	43	3 Feed	_
	9.50			Moore Vantage	55.2 62.3	98 99	39 38	7.5 9.5	2.0	40 45	3 Feed 2 Feed	=
Necessary	differe	nce—1	1.7 bush	els.								
3A	Tes 1	ts Disc	earded o	Marie Guille	f Dan min, F	orget.	rought,	Pests, F	rost, or (	Other Ca	uses	
		111111										
	14/1/5			WHE	T P	OOL	ISTR	RICT 2				
			_	JA	Y A. I	LARSEN,	RADVI	LLE	41			
2A	2	1	В	Hannchen Montcalm	58.8 69.9	91 94	28 37	9.5 10.0	1.3	53 52	1 C.W. 21 1 C.W.6F	R— 2 —
				Moore	59.4	92	36	9.5	1.0	50	1 Feed	S.
No signific	ant gr	ain yiel	d differe	Vantage	56.6 varietie	94 es.	32	10.0	1.0	50	1 Feed	_
				BIII	DD J.	ALDRED	, CEYL	ON	-			
2A	2	2	В	Hannchen	32.3	90	27	8.0	2.5	54	1 Feed	Pl., B
				Montcalm Moore	38.0	92 91	34	6.0 8.0	1.5	49 46	1 Feed 1 Feed	Pl.
NI	1:66	6	2 handral	Vantage	44.6	90	28	8.0	1.3	47	1 Feed	_
Necessary	differe	nce-o	.2 busne	IS.								
1 Å	2	5	В	JOHNNIE E Hannchen	. MeG 53.2	OWAN, 1	LONESO 20	9.5	1.0	54	3 C.W.2F	
1A	2	,	ь	Montcalm	52.6	89	24	9.0	2.0	50	1 Feed	G.
				Moore Vantage	45.6 52.3	91 91	26 22	9.0 9.0	2.0	49 50	1 Feed 1 Feed	_
No signific	ant gr	ain yiel	d differe	nce between	varietie	es.		7.0	2.0	30	11000	
				AL	VIN P	ETER, W	OODRO	ow	10.07			
1A	2	6	В	Hannchen Montcalm	29.9 28.2	-	22 23	8.0	2.0	51 48	2 C.W.2F 2 C.W.6F	- 5
				Moore	24.4		25	9.0	2.0	46	1 Feed	_
Necessary	differe	nce_2	4 bushel	Vantage	30.6	-	24	9.0	1.0	46	1 Feed	_
	differe	nec 2	- Duone									
1A	2	7	В	Hannchen	28.9	ITA, STO	NEHE	NGE	_	50	2 C.W.2F	-
				Montcalm.	33.7	-	-	-		48	2 C.W.2F 2 C.W.6F	-
				Moore Vantage	30.2 32.9	_	_	_	_	46 48	1 Feed 1 Feed	_
Yields not	used i	n zone	summari	es.			-					
			-		RL L	UEBKE,	DAHIN	DA				
1A	2	9	В	Hannchen Montcalm	15.1 18.5	89 87	22 24	9.0	2.0 2.0 2.0	52 49	3 C.W.2F 3 C.W.6F	G. F. G.
				Moore	13.6	87	24	10.0	2.0	47	1 Feed	
Necessary	differe	nce—4	3 bushel	Vantage	27.6	87	24	9.0	2.0	47	1 Feed	_
Necessary				vantage								_

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per meas- ured bushel	Com-	Gradin R'm'rk
		-		DANIEL	ERE	MENKO,	MAPLE	CREEK				
1B	4	2	В	Hannchen Montcalm Moore Vantage	12.2 9.7 9.1 7.9		18 25 25 25 24	=	=	40 35 34 32	3 Feed 3 Feed 3 Feed 3 Feed	=
Necessary	differe	nce—1	.7 bushel			7				32	J I ccu	
	-			ZENE	J. D	OWNEY,	GULL :	LAKE				
1A	4	4	С	Hannchen Montcalm Moore Vantage	29.0 40.9 38.8 39.0	=	Ξ	8.5 9.8 9.3 9.0	1.8 1.3 2.0 1.8	49 45 41 44	2 C.W.2F 2 Feed 3 Feed 2 Feed	<u>-</u>
No signific	cant gr	ain yiel	ld differe	nce between v	arietie	es.		9.0	1.0	44	2 1 660	
	Too	to Dia	- bohen	n Assaunt a	4 Dam	and by D	marrah t	Posts F	nest em l	Other C		-
1B	4	7	C	Melvin C. Re			rought,	rests, r	rost, or	other Ca	tuses	
								-				
				WHEA	T P	OOL	DISTR	ICT 5			,	
				VERNON	OEHL	ERKING	GRAV	ELBOUR	G			,
1A	5	2	В	Hannchen Montcalm Moore	63.7 78.4 79.0	Ξ	30 48 44 36	4.0 8.0 8.0 5.0	1.0 3.0 2.0 2.0	44 46 43	2 Feed 3 C.W.6F 2 Feed 1 Feed	=
Yields not	used i	n zone	summari	Vantage	104.1		30	5.0	2.0	46	1 Feed	_
	-			STAN	LEY	c. Fown	CE. NEV	TLLE		-		-
1A	5	3	В	Hannchen Montcalm Moore Vantage	5.7 5.1 10.8 13.9	100 99 99 99 98	22 29 30 27	3.0 4.0 4.0 3.8	3.0 3.0 3.0 3.0	53 48 48 47	2 C.W.2F 2 C.W.6F 1 Feed 1 Feed	=
Badly dam	naged h	y gras	shoppers	. Yields not us				3.0	3.0	71	1 1 ccu	7.77
	-			GORI	ON	RNOLD,	SHAMI	ROCK				
1A	5	5	В	Hannchen Montcalm Moore	23.2 24.8	93 93	48 46	9.0 9.8	1.3	50	1 Feed 1 Feed	Pl., Br.
Hannehan	doctro	wad ot	har waria	Vantage	32.1	93	43	9.8	1.3	50	1 Feed	_
- I I I I I I I I I I I I I I I I I I I	uestro	yea, or	ilei vaile									
1 4	_	-	n			GAGNON	, CODE	RRE		<b>F</b> 2	1	п о
1A	5	6	В	Montcalm Moore Vantage	19.1 27.0 25.0 46.6	=	=	=	=	53 48 47 50	1 Feed 1 Feed 1 Feed 1 Feed	F., G. F., G.
Damaged	by gras	sshoppe	ers. Yield	ls not used in		ummaries.						
				RUSSEL	L HA	LLBORG	HALVO	DRGATE				
1A	5	9	С	Hannchen Montcalm Moore Vantage	55.3 79.0 70.4 66.6	Ξ	=	=	=	49 47 45 46	2 C.W.2R 3 C.W.6R 2 Feed 1 Feed	<u>-</u> s.
Necessary	differe	nce-6	.6 bushel	s.	00.0					40	11000	
									-			
				WHEA	T P	OOL E	DISTR	ICT 6				
				EDV	VARD	C. WIL	D, ODE	SSA	4			
2A	6	2	В	Hannchen Montcalm Moore	41.7 30.7 28.8	92 92 92	33 31 34	9.0 8.8 9.0	2.0 2.0 2.0 2.0	44	2 C.W.2R 2 Feed 2 Feed	=
No signific	ant gr	ain yiel	d differe	Vantage nce between v	36.8 varietie	91 es.	32	9.0	2.0	45	2 Feed	
	-		7			RKPATR	ICK T	RIIAY				
2A	6	4	В	Hannchen Montcalm Moore	47.7 51.9 41.9	91 90 90	24 27 29	9.3 8.5 9.3	2.0 2.0 2.0	53 49 49	2 C.W.2R 2 C.W.6R 1 Feed	W.S. W.S. S.
No signific	ant gr	ain yiel	d differe	Vantage nce between v	49.1 varietie	90 es.	26	9.3	1.0	49	1 Feed	_

## Wheat Pool District 6—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw Strength	Neck Strength	Lbs. per meas- ured bushel	Com- mercial	Grading R'm'rks
						G. SPICE	ER, TIL	NEY				
2E	6	5	В	Montcalm Moore Vantage	43.6 43.9 38.2 48.5	=	=	=	=	52 51	2 C.W.2R 2 C.W.6R 1 Feed 2 Feed	
Necessary	differe	ence—3	.5 bushel		40.5					32	2 Teeu	
				DONALD C	. SIN	CLAIR, F	ORT Q	U'APPEI	LE			
3C		9	В	Hannchen Montcalm Moore Vantage	58.2 56.3	Ξ	37 41 42 40	6.8 8.0 9.0 10.0	2.0 3.0 1.8 1.0	57 52 50 52	2 C.W.2F 2 C.W.6F 1 Feed 1 Feed	
No signific	cant gr	ain yiel	d differe	nce between	varieti	es.						
				WHE	AT P	OOL	DISTR	ICT 7				
				EDWA	RD A.	PLEWES	s, Moo	SOMIN				
3B	7	2	C	Hannchen	51.2	_	40	1.0	2.0	48	3 C.W.2F	- I
				Montcalm Moore	67.6 53.6	_	48 44	2.0 9.3	3.0	48 47	3 C.W.6F 1 Feed	— — —
Necessary	differe	ence—8	.0 bushel	Vantage	57.1	-	42	10.0	1.0	47	1 Feed	-
	-		-		RA J.	HEWSO	N. LAN	GBANK				
3A	7	3	В	Hannchen	39.0	_	38	7.8	2.5		3 C.W.6F	-
				Montcalm Moore	50.2 41.5	_	47 46	9.5 10.0	1.3	45	2 Feed 3 Feed	_
No signific	cant gr	ain viel	d differe	Vantage	42.6		40	10.0	1.0	46	1 Feed	-
							OBTITIAL	ADTOF		-	-	-
3A	7	6	В	Hannchen	50.0	UDIN, M	24	10.0	3.0	49	2 C.W.2F	-
				Montcalm Moore	47.9 52.6	91 91	30 30	9.3 7.8	2.0 1.8	45 46	2 Feed 1 Feed	_
NI- signifi			1 1:00	Vantage	51.3	90	29	7.8	1.0	46	1 Feed	_
- Sigiliti	Laint gi	am yiei	d differe	nce between								
3C	7	8	В	Hannchen	64.9	A. POLVI 94	30	8.3	2.0	53	2 C.W.2R	_
J		U	D	Montcalm	70.3	93	40	7.3	3.0	51	3 C.W.6R	
				Moore Vantage	68.2 66.2	94 94	38 36	9.0 9.3	3.0	50 50	1 Feed 1 Feed	=
No signific	cant gr	ain yiel	ld differe	ence between	varieti	es.						
20	-					EINARSO						0
3C	7	9	В	Hannchen Montcalm	61.0	97	37 44	4.5 8.8	1.5	52 51	1 Feed 1 Feed	G. G.
				Moore Vantage	57.7 62.1	97 96	37 38	9.8 10.0	1.3	50 50	1 Feed 1 Feed	_
No signific	cant gr	ain yiel	d differe	nce between	varietie		30	10.0		30		
				GERAI	DINE	A. TOPI	NKA, Z	ENETA				
3C	7	10	В	Hannchen Montcalm	49.4	_	27 36	10.0	2.0	53 46	2 C.W.2F 1 Feed	Br. F.
				Moore Vantage	55.7 54.6	-	38 37	9.8	1.0	46	1 Feed 1 Feed	=
No signific	cant gr	ain yiel	ld differe	ence between		es.	31	9.3	1.0	46	1 1 eeu	
				WHE	AT P	OOL	DISTR	ICT 8				
		-		MALO	COLM	D. ADAN	IS. Mad	NUTT				
3B	8	1	C	Hannchen	52.6	-	_	_	_	52	2 C.W.2R	W.
				Montcalm Moore	76.0	_		_	_	49 45	1 Feed 2 Feed	W., G.
Samples in	compl	ete. Yie	elds not	Vantage used in zone s	91.1	ries.	-	_	_	49	1 Feed	_
					-	KELLY,	SATTI	COATE				
3B	8	2	В	Hannchen	64.7	- KELLY,	SALT	-	-	48	1 Feed	F.
				Montcalm Moore	68.5 61.2	_	_	_	_	46 46	1 Feed 1 Feed	F. F.
No signific	ont o	nin!-!	a dice	Vantage	60 6		_	_	_	48	1 Feed	_
- Signific	ant gr	ain yiel	a aiffere	nce between	varietie	es.			+			

## Wheat Pool District 8-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per meas- ured bushel	Com-	Grading R'm'rk
				GEORGE	E. LA	ZURKO,	WILLO	WBROO	K			
3C	8	4	В	Hannchen Montcalm Moore	44.6 50.3 42.6	90 90 89	=	10.0 8.0 9.0 9.3	1.0 1.0 1.0	54 50 49	2 C.W.2R 2 C.W.6R 1 Feed	=
No signific	ant gr	ain yiel	d differe	Vantage	45.0 varietie	92 es.	_	9.3	1.8	50	1 Feed	
				DONA	LD D.	GULUTZ	AN. CA	NORA				
3B	8	6	С	Hannchen	41.0	-	_	_	_	47	2 Feed 3 Feed	Dcl.
				Montcalm Moore	49.6	_	_	_	_	40 40	3 Feed 3 Feed	S.
Necessary	diffora	200 2	1 hughal	Vantage	38.2	_	-	-	-	44	2 Feed	_
recessary	uniere	1100-3	1 busilei	is.								
						NOWAK				-		
3B	8	7	В	Hannchen Montcalm	54.7 46.0	82 80	32 35	4.3	2.0	53 50	1 C.W.2F 2 C.W.6F	R S.E.
				Moore	63.3	80	36	8.3 7.8	1.5	50	1 Feed	-
Necessary	differe	nce-4	8 bushel	Vantage	56.0	81	32	9.0	1.3	50	1 Feed	_
	-	-		TT/TT T T A	36 13	MAROH	N	ADDAN		-		
4A	8	10	В	Hannchen	74.5	MAKOHO	32	1.0	2.0	49	1 Feed	G.
			_	Montcalm	69.0	_	36	7.0	2.0	49	1 Feed	G.
				Moore Vantage	91.8 81.4	=	36 36	6.0	2.0	48 48	1 Feed 1 Feed	=
No signific	cant gr	ain yiel	d differe	nce between	varietie	es.						
				DAV	ID C.	SALMON	D, WEI	EKES				
3F	8	11	В	Hannchen	24.4	-	_	_	-	32	3 Feed	F.
				Montcalm	26.0	-	-	_	_	28	3 Feed	F.
				Moore	8.3		_	-	-	26	3 Feed	F.
	Yields	not us	ed in zor	Moore Vantage ne summaries	8.3	=	=	= 7	=	28 26 26	3 Feed 3 Feed	F. F. F.
	Yields	not us	ed in zor	Moore Vantage ne summaries	8.3	OOL D	DISTR	ICT 9	=	26 26	3 Feed 3 Feed	F. F.
Damaged.		not us		Moore Vantage ne summaries	8.3 20.9	POOL D				26	3 Feed	F
		not us	ed in zor	Moore Vantage ne summaries  WHE	8.3 20.9 AT P					26	3 Feed	F
Damaged.				WHEA  WHEA  PE  Hannchen Moore	8.3 20.9 AT P TER I 77.9 69.9 67.5					49 41 42	3 C.W.2F 3 Feed 3 Feed 3 Feed	F
Damaged.	9	1	В	Moore Vantage e summaries  WHE.  PE Hannchen Montcalm Moore Vantage	8.3 20.9 AT P TER 1 77.9 69.9 67.5 64.9	MARSHAI				26 49 41	3 C.W.2F 3 Feed	F
Damaged.	9	1	В	WHEA  WHEA  PE  Hannchen Montcalm Woore Vantage nee between	8.3 20.9  AT P TER I 77.9 69.9 67.5 64.9 varietie	MARSHAI	LL, ITU	NA		49 41 42	3 C.W.2F 3 Feed 3 Feed 3 Feed	F
Damaged.  3C	9 cant gr	1 ain yiel	B d differe	Moore vantage ne summaries  WHEA  PE  Hannchen Montcalm Moore Vantage nce between	8.3 20.9 AT P TTER I 77.9 69.9 67.5 64.9 varietie	MARSHAI	LL, ITU	TNA		49 41 42 44	3 C.W.2F 3 Feed 3 Feed 2 Feed	F
Damaged.	9	1	В	Moore vantage ne summaries  WHEA  PE  Hannchen Montcalm Moore Vantage vantage The between  ERI  Hannchen Montcalm Montcalm Montcalm	8.3 20.9  AT P TER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3	MARSHAI	ER, LIP	TON 2.3 8.8	3.0	49 41 42 44 48	3 C.W.2F 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed	F
Damaged.  3C No significations of the state of the	9 cant gr	1 ain yiel 2	B d differe B	Moore vantage ne summaries  WHE  Hannchen Montcalm Vantage vantage Montcalm Montcalm Vantage Vantage Vantage Vantage Vantage Vantage	8.3 20.9 AT P TTER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3 38.8 35.5	MARSHAI	LL, ITU	TON 2.3	2.0	49 41 42 44 48	3 C.W.2F 3 Feed 3 Feed 2 Feed	F
Damaged.  3C No significations of the state of the	9 cant gr	1 ain yiel 2	B d differe B	Moore vantage ne summaries  WHEA  PE  Hannchen Montcalm Moore Vantage vantage The between  ERI  Hannchen Montcalm Montcalm Montcalm	8.3 20.9 AT P TTER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3 38.8 35.5	MARSHAI	ER, LIP'	TON 2.3 8.8 8.5	3.0 2.0 2.0 2.0	49 41 42 44 48 48	3 C.W.2F 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed	F
Damaged.  3C  No signification of the signifi	9 cant gr	1 ain yiel 2 ain yiel	B d differe	WHEA  WHEA  PE  Hannchen Montcalm Vantage Vantage Montchen Montchen Montchen Vantage Montchen M	8.3 20.9  AT P TTER I 77.9 69.9 67.5 64.9 varietie (C J. I 43.0 35.3 35.3 varietie D K.	MARSHAI	ER, LIP' 28 34 33 34	TON 2.3 8.8 8.5 8.5 8.5 GREY	2.0 2.0 2.0	49 41 42 44 48 48 48 47	3 C.W.2F 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 1 Feed	F., G. Pl.
Damaged.  3C  No signification of the signifi	9 cant gr	1 ain yiel 2	B d differe B	WHEA  PE Hannchen Montcalm Moore Vantage vantage Vantage Hannchen Hannchen	8.3 20.9	MARSHAI	ER, LIP' 28 34 33 34	TON  2.3 8.8 8.5 8.5 8.5	2.0 2.0 2.0	49 41 42 44 48 48 47	3 C.W.2F 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 1 Feed	F., G. Pl.
Damaged.  3C  No signification of the signifi	9 cant gr	1 ain yiel 2 ain yiel	B d differe	WHEA  PE Hannchen Montcalm Moore Moore Vantage Moore Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Moore Vantage Vantage Montcalm Moore Wontcalm Moore Montcalm Moore Montcalm Montcalm Moore Montcalm Moore Montcalm Moore Moore Moore	8.3 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9	MARSHAI	ER, LIP' 28 34 33 34	TON  2.3 8.8 8.5 8.5 8.5 GREY 8.3 8.5 8.8	2.0 2.0 2.0 1.0 1.0	49 41 42 44 48 48 48 47 54 51 49	3 C.W.2F 3 Feed 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 2 C.W.2F 2 C.W.6F 1 Feed	F., G. Pl.
Damaged.  3C	9 cant gr. 9 cant gr	1 2 ain yiel 4	B d differe B d differe	WHEA  PE Hannchen Montcalm Moore Vantage Nontcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Hannchen Vantage	8.3 20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9	MARSHAI	ER, LIP' 28 34 33 34	TON 2.3 8.8 8.5 8.5 4 GREY 8.3 8.5	2.0 2.0 2.0 1.0	49 41 42 44 48 48 48 47 54	3 C.W.2F 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 2 C.W.2F 2 C.W.2F 2 C.W.6F	F., G. Pl.
Damaged.  3C	9 cant gr. 9 cant gr	1 2 ain yiel 4	B d differe B d differe	Moore	8.3 20.9  TER I 77.9 69.9 67.5 64.9 varietie (C J. I 43.0 35.3 38.8 35.5 varietie varietie varietie varietie	MARSHAI	ER, LIP	TON  2.3 8.8 8.5 8.5 8.5 8.5 8.8 8.0	2.0 2.0 2.0 1.0 1.0	49 41 42 44 48 48 48 47 54 51 49	3 C.W.2F 3 Feed 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 2 C.W.2F 2 C.W.6F 1 Feed	F., G. Pl.
Damaged.  3C	9 cant gr. 9 cant gr	1 2 ain yiel 4	B d differe B d differe	Moore	20.9 20.9 20.9 20.9 20.9 20.9 20.9 20.9	MARSHAI	EL, ITU	TON  2.3 8.8 8.5 8.5 8.5 GREY 8.3 8.5 8.0 AKE 7.0	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 48 47 54 51 54	3 C.W.2F 3 Feed 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 2 C.W.2F 2 C.W.6F 1 Feed	F., G.  F., G.  Pl., Br
Damaged.  3C	9 cant gr. 9 cant gr	ain yiel  2 ain yiel  4	B d differe B d differe B	WHEA  PE Hannchen Montcalm Moortealm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm More Vantage vantage vantage scheekween  DONAL Hannchen Montcalm	8.3 20.9 TER I 77.9 69.9 67.5 64.9 varietie U. J. I 43.0 35.3 38.8 35.5 varietie D. K. 89.7 88.8 80.1 90.5 90.5 90.5 90.5 90.5 90.5 90.5 90.5	MARSHAI	EL, ITU	TON 2.3 8.8 8.5 8.5 6REY 8.3 8.5 8.8 8.7 0.00	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 48 47 51 49 50	3 C.W.2F 3 Feed 3 Feed 3 Feed 1 Feed 1 Feed 1 Feed 1 Feed 1 Feed 1 Feed 1 Feed 1 Feed	F., G.
Damaged.  3C	9 9 cant gr 9 differe	ain yiel  2 ain yiel  4 nce—4	B d differe B d differe B	WHEA  PE Hannchen Montcalm Moore Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Montcalm Wortage Vantage	8.3 20.9 TER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3 38.8 35.5 varietie D K. 89.7 88.8 80.1 190.5	MARSHAI	EL, ITU	TON  2.3 8.8 8.5 8.5 8.5 GREY 8.3 8.5 8.0 AKE 7.0	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 48 47 54 51 54	3 C.W.2F 3 Feed 3 Feed 3 Feed 2 Feed 1 Feed 1 Feed 1 Feed 2 C.W.2F 2 C.W.6F 1 Feed	F., G.  F., G.  Pl., Br
Damaged.  3C	9 9 cant gr 9 differe	ain yiel  2 ain yiel  4 nce—4	B d differe B d differe B	Moore	AT P  TTER I  77.9 69.9 67.5 64.9 varietie  IC J. I  43.0 35.5 varietie  D K. 89.7 88.8 80.1 90.5	MARSHAI	EL, DR 24 26 28 28 29 29 20 20 20 21 21 21 22 22 23 24 24 26 28	TON  2.3 8.8 8.5 8.5 8.5 GREY 8.3 8.5 8.0  AKE 7.0 10.0 10.0 10.0	2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 48 47 54 51 49 50	3 C.W.2F 3 G.W.2F 3 Feed 3 Feed 2 Feed 1 Fee	F., G. Pl., Br
Damaged.  3C	9  cant gr 9  differe	ain yiel  2 ain yiel  4 nce—4	B d differe B d differe B 0 bushel B	Moore	8.3 20.9  TER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3 38.8 35.5 varietie ID K. 89.7 88.8 80.1 190.5	MARSHAI	EL, ITU	TON 2.3 8.8 8.5 8.5 6REY 8.3 8.5 8.8 8.0 AKE 7.0 10.0 10.0 10.0	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 47 51 49 50 54 46 48 46	3 C.W.2F 3 Feed 3 Feed 3 Feed 1 Feed	F., G. Pl., Br. F.
Damaged.  3C	9  cant gr 9  differe	ain yiel  2 ain yiel  4 nce—4	B d differe B d differe B	Moore Vantage ne summaries  WHE.  PE Hannchen Montcalm Montcalm Montcalm Montcalm Montcalm Moore Vantage	8.3 20.9 20.9 67.5 67.5 64.9 varietie C J. I 43.0 35.3 38.8 35.5 varietie D K. 89.7 88.8 80.1 90.5	MARSHAI	EL, DR 24 26 28 28 20 20 21 21 25	TON  2.3 8.8 8.5 8.5 6 GREY 8.3 8.5 8.8 8.0  AKE 7.0 10.0 10.0 10.0	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 48 47 54 51 49 50	3 C.W.2F 3 Feed 3 Feed 3 Feed 1 Feed	F., G. Pl., Br. F.
Damaged.  3C	9  cant gr 9  differe	ain yiel  2 ain yiel  4 nce—4	B d differe B d differe B 0 bushel B	Moore	8.3 20.9  TER I 77.9 69.9 67.5 64.9 varietie IC J. I 43.0 35.3 38.8 35.5 varietie ID K. 89.7 88.8 80.1 190.5	MARSHAI	EL, ITU	TON 2.3 8.8 8.5 8.5 6REY 8.3 8.5 8.8 8.0 AKE 7.0 10.0 10.0 10.0	2.0 2.0 2.0 1.0 1.0 2.0	49 41 42 44 48 48 47 51 49 50 54 46 48 46	3 C.W.2F 3 G.W.2F 3 Feed 3 Feed 2 Feed 1 Fee	F., G. Pl., Br. F.

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw Strength	Neck	Lbs. per meas- ured bushel	Com- mercial	Grading R'm'rks
				JOHNNY	ACK	ERMAN,	CHAMI	BERLAIN	1	-		10
2B	10	1	С	Hannchen Montcalm Moore Vantage	34.8 21.4 21.4 26.4	=	=	=	=	51 46 46 47	1 C.W.2F 3 C.W.6F 1 Feed 1 Feed	<u>S</u>
Necessary	differe	nce—4	.8 bushel				8.00					
				MORE	is w.	RAFOSS	, CON	QUEST				
2B	10	5	В	Hannchen Montcalm Moore Vantage	6.1 9.7 9.6 9.3	=	Ξ	5.8 9.0 8.5 7.3	3.0 2.5 2.8 2.8	48 45 40 41	3 C.W.2F 2 Feed 3 Feed 3 Feed	
Damaged	by bire	ds and	grasshop	pers. Yields n		in zone s	ummarie		2.0	41	J Peeu	
				RU	DY J.	GROSS,	RENO	WN				
2B	10	8	В	Hannchen Montcalm Moore Vantage	31.3 21.9 28.8 31.1	94 93 93 94	28 30 30 30 30	9.0 8.0 9.0 9.0	1.0 1.0 1.0 1.0	53 52 50 50	3 C.W.2F 1 Feed 1 Feed 1 Feed	Pl., Br.
Necessary	differe	ence—4	.7 bushel		31.1	74	30	7.0	1.0	30	11000	
				ELAINE	M. P	ODOLES	KI, KE	NASTON			1	
2B	10	9	В	Hannchen Montcalm Moore	34.9 29.9 32.2	Ξ	=	=	Ξ	52 48 46	2 C.W.2F 2 C.W.6F 1 Feed	
Yields not	used i	n zone	summari	Vantage	34.6				ner halls	46	1 Feed	177.71
19 A				WHEA	T P	OOL D	ISTR	ICT 1	1			
25		•	n			SONMO						
2F	11	2	В	Hannchen Montcalm Moore Vantage	15.7 16.0 17.4 17.4	86 92 92 92	18 22 20 20	9.8 10.0 10.0 9.0	2.0 1.8 1.8 1.3	48 45 45 44	3 C.W.2F 2 Feed 2 Feed 2 Feed	
No signific	cant gr	ain yiel	ld differe	ence between		es.						diam'r.
				ALLEN	w. F	OLLENS	BEE, GI	LIDDEN				
1B	11	3	В	Hannchen Montcalm Moore	19.4 25.0 23.6 32.2	=	38 45 42 38	9.0 8.0 7.3	1.0 1.5 1.5	32 33 34 36	3 Feed 3 Feed 3 Feed 3 Feed	Ξ
No signific	cant gr	ain yie	ld differe	Vantage		es.	30	8.0	1.0	30	3 Peed	
			-	EDNE	CT W	ROGER	SON D	ADOV		-		
2F	11	6	В	Hannchen	36.3	- HOGER		ARCI	_	47	1 Feed	F.
				Montcalm Moore	12.2			=	=	38 38	3 Feed 3 Feed	S.
Necessary	differe	ence—1	0.5 bush	Vantage	31.9	_	_	_	_	41	3 Feed	_
	7					0077				-		
2F	11	7	В	CLAREI Hannchen	63.0	. COLLII	NS, ROS	SETOWN 9.3	3.0	52	1 Feed	F.
				Montcalm	37.4 44.2	104 101	34	9.8	2.0	49 47	1 Feed 1 Feed	F.
				Moore Vantage		104	32	10.0	1.3	48	1 Feed	_
Necessary	differe	ence—7	.6 bushe	ls.								
						NEIL, C						
1A	11	9	В	Hannchen Montcalm Moore	51.3 30.7 49.4	Ξ	26 31 28	10.0 9.5 9.3	3.0 2.0 2.0	54 51 50	3 C.W.2F 1 Feed 1 Feed	R F., G., Pl.
Necessary	differ	ence_0	8 hucha	Vantage	46.3	_	28	9.8	1.0	50	1 Feed	
recessary	dillere	8	.o busne	15.								-
				n Account	. T.			D T		~		

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw strength	Neck strength	Lbs. per meas- ured bushel	Com- mercial grades	Gradin R'm'rk
	-	-		RI	DOLP	H EGER	T, CAN	DO				
2D		2	В	Montcalm Moore Vantage	42.8 42.8 42.0 43.6	= =	28 34 33 31	9.3 9.8 10.0 9.8	1.5 1.3 1.3 1.8	50 46 46 47	2 C.W.2F 3 C.W.6F 1 Feed 1 Feed	
No signific	ant gr	ain yiel	d differe	ence between	varietie	s.						
2D		5	В	Hannchen Montcalm Moore Vantage	Y G.	<b>KRAFT</b> , 124 123 122 123	12 15 14 14	7.0 8.0 9.0 8.0	2.0 2.0 1.0 1.0	=	_	=
No sample	s recei	ved.										
3E	12	7	В	Hannchen Montcalm Moore	59.4 55.8 53.4	107 101 102	33 37 35	7.8 9.3 9.0	1.3 1.0 1.0	55 47 48	3 C.W.2F 1 Feed 1 Feed	F. F.
No signific	ant gr	ain yiel	d differe	Vantage	58.2 varietie	105 es.	35	8.8	1.0	47	1 Feed	
				WHEA			ISTR	ICT 1	3			
				J	OHN F	RICHERT	, YOUN	1G		1		
2B		2	A	Hannchen Montcalm Moore Vantage	36.2 34.1 31.9	=	28 33 31 29	9.8 10.0 10.0 10.0	2.0 2.5 1.5 1.5	51 47 47 47	2 C.W.2F 3 C.W.6F 1 Feed 1 Feed	S
No signific	cant gr	ain yiel	d differe	ence between	varietie	es.						
2B	13	4	В	Montcalm Moore	38.4	117 120 118	31 29	6.8 8.0	1.0 2.0 2.0	52 48 48	1 Feed 1 Feed 1 Feed	F., Pl. B., Pl.
Necessary	differe	ence—4	.8 bushe	Vantage	51.2	119	33	8.3	1.3	49	1 Feed	
					RGE V	r menn	T WAT	DATA BY	-			
2B	13	5	C	Hannchen Montcalm Moore Vantage	24.7 29.6 26.3 24.2	103 103 103 103 101	Y, WAF 29 35 34 30	9.8 8.5 8.3 9.0	1.8 1.8 1.5 1.0	48 41 40 39	1 Feed 3 Feed 3 Feed 3 Feed	F. F. F. F.
No signific	cant gr	rain yiel	ld differe	ence between	varietie	es.						
3G		8	В	Hannchen Montcalm Moore Vantage	36.1 31.8 25.5 34.5	107 110 111 111 109	19 24 23 23	7.0 9.0 8.3 9.5	3.0 3.0 2.3 1.5	51 46 47 47	2 C.W.2F 3 C.W.6F 1 Feed 1 Feed	St.
Necessary	differe	ence—4	.6 bushe	ls.								
				WHEA	T P	OOL D	ISTR	ICT 1	1			
				JAC	CK EV.	ANS, LIG	HTWO	ODS				
4A		4	C	Montcalm Moore Vantage	42.0 46.6 44.0	88 93 93 91	29 33 33 31		Ξ	54 50 48 48	2 C.W.21 2 C.W.61 1 Feed 1 Feed	R Del. R Del.
No signific	cant gi	ain yiel	d differe	ence between	varietie	es.						
3D	14	8	В	Montcalm Moore	<b>DON I</b> 43.3 37.8 29.9	97 99 99	26 36 35	10.0 9.5 9.0	1.3 1.5 1.3	54 51 50	3 C.W.2I 2 C.W.6I 1 Feed	R B.P.
No signific	cant gr	rain yiel	ld differe	Vantage ence between	43.8	99	32	10.0	1.0	48	1 Feed	-
3F	14	11	С	Howard Hannchen Montcalm Moore	R. MI 30.3 27.7 19.8 22.6	ILLIGAN	, CARR	OT RIVI	ER	48 43 43 44	3 C.W.2F 2 Feed 2 Feed 2 Feed	₹ <u> </u>
Samples in	compl	lete. Yie	elds not	Vantage used in zone	summai	ries.				44	2 reed	
3B	Te:			Evert H. Ho Norman Ber	of Dan	nage by D	rought,	Pests, F	rost, or (	Other Ca	uses	
											-	

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield bus. per acre	Days seeding to ripening	Plant height in inches	Straw Strengtl	Neck Strength	Lbs. per meas- ured bushel	Com- mercial	Grading R'm'rk
				VA	N DAY	ZIES, KII	WINNI	NG				
No signific		5 rain yiel	B ld differe	Hannchen Montcalm Moore Vantage ence between	56.9 61.5 66.6 58.1 varietie	93 91 93 89	49 51 50 44	5.0 10.0 10.0 10.0	1.0 1.0 1.0 1.0	51 48 47 49	3 C.W.2F 3 C.W.6F 1 Feed 1 Feed	
	Tes	ts Disc	earded o	n Account	of Dam	age by D	rought,	Pests, F	rost, or (	Other Ca	auses	
3B	15	9	В	Mark J. Car	tier, W	hite Star.						
				WHEA								
				CHARLIE C		ILLE, NO	RTH B	ATTLEF	ORD			
No signific		3	D ld differe	Hannchen Montcalm Moore Vantage	48.3 55.3 49.9 49.4 varietie		=	=	=	51 46 44 44	2 C.W.2F 3 C.W.6F 2 Feed 2 Feed	
	-		-			J. COLLI	AR MI	EOTA .		-		-
3E		4 rain yie	B ld differe	Hannchen Montcalm Moore Vantage	62.3 79.4 72.0 78.0	104 105 104 104	24 35 30 30	7.0 9.3 8.8 10.0	2.8 2.8 1.8 1.0	57 52 51 51	2 C.W.2F 2 C.W.6F 1 Feed 1 Feed	
				JO	HN B.	TOBIN,	PAYNT	CON				
3G		5 ence_3	B 7 bushe	Hannchen Montcalm Moore Vantage	55.3 41.4 35.3 37.6	Ξ	27 36 34 28	8.0 10.0 10.0 10.0	2.0 1.0 1.0 1.0	41 26 38 38	3 Feed 3 Feed 3 Feed 3 Feed	=
Trecessary	differ	ciice—5	. Dusile		E C D	BYTTE CY	TAC	************				
3E		6	В	Hannchen Montcalm Moore Vantage	47.3 44.2 32.3 35.7	103 103 107 107	28 35 34 36	10.0 10.0 10.0 10.0	1.0 3.0 1.0 1.0	50 44 44 43	2 C.W.2F 2 Feed 2 Feed 2 Feed	=======================================
Necessary	differ	ence—8	.o bushe									
4D		0	n			GAMBL			1 5	46	1 771	-
AB		9 rain vie	B ld differe	Hannchen Montcalm Moore Vantage	38.5 28.9 46.5 40.7 varietie	93 90 90 89	31 35 35 32	7.5 10.0 10.0 10.0	1.5 1.3 1.0 1.0	46 38 43 43	1 Feed 3 Feed 2 Feed 2 Feed	F



Anna Appelquist of Neptune and her variety test.

## **CROP COMPARISON TESTS**

In 1948 the Saskatchewan Wheat Pool began a series of crop tests in which a comparison was made between leading varieties of each of the four main spring crops grown in Saskatchewan on a cash-value-per-acre basis. The varieties tested were Thatcher wheat, Fortune oats, Montcalm barley and Dakota flax. The tests were distributed throughout the eastern, north-eastern and northern cereal variety zones of the province, and an attempt was made to determine the relative cash values of the crops when seeded under identical conditions.

As the 1948 project proved successful and a considerable amount of information was assembled, it was decided to continue the tests for a period of years in order that more conclusive results could be obtained. Thus, crop comparison tests were undertaken on a more widespread scale in 1949 and 1950.

Further valuable data were collected from the 1949 project, but due to the severe frosts in August of 1950 the results obtained from tests conducted during that year were of little practical value. Because each of the four crops was in a different stage of development when the frost occurred, damage within individual tests ranged from light to severe. Under these conditions, it was impossible to assess the suitability of each crop for use during a more normal year.

For this reason no attempt was made to summarize the results of the 1950 project by zones. The following table shows the results of the individual tests on a yield basis, and will be of interest to farmers in the districts where the tests were located. It is emphasized, however, that these results should not be used as a guide to future operations in view of the unusual conditions under which the tests were conducted.

#### DESCRIPTION OF VARIETIES

**Thatcher** wheat—(See page 9).

**Fortune** oats is a late maturing, large seeded, high yielding variety developed at the University of Saskatchewan from the cross Victory X V.R.M.V. The latter strain was originated by the United States Department of Agriculture, from the double cross (Victoria X Richland) X (Markton X Victory). Fortune is resistant to smut and most races of stem rust. It is moderately susceptible to leaf rust.

Montcalm barley—(See page 40).

Dakota flax was developed by the United States Department of Agriculture and the North Dakota Agricultural Experiment Station from the cross Renew X Bison. It is highly resistant to wilt, moderately resistant to rust, and moderately susceptible to pasmo. Dakota has blue blossoms, and medium sized brown seeds which produce good quality oil. It matures earlier and more uniformly than Royal.



Helen Kelln of Duval and her variety test.

## **Individual Summarized Results of Crop Comparison Tests**

				WHEAT	POC	L DIST	TRICT 1			
Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
				ROBERT	S COI	LIER, CA				
3A	1	1	В	Thatcher	17.8 73.8 26.4	104 97 104 121	39 39 37 25	60 41 50 56	Rej. 2 Nor. 1 Feed 2 C.W. 6R 1 C.W.	E. M. Pl.
	-			HARVEY	MARCH	AND. STO	RTHOAK	S		
3A	1	2	В	Thatcher	43.4	112 94 94 126	31 31 40 23	61 40 51 55	2 Nor. 3 C.W. 3 C.W. 6R 1 C.W.	Sh., G. G., M. G.
				KENNETH	E. SM	ITH, DOL				
3A	1	3	В	Thatcher	69.5	107 101 92 143	37 40 37 24	43 36 40 48	Feed 1 Feed 3 Feed 3 C.W.	Sh., G., F F.
				W. KI	EITH R	OGERS, O	XBOW		***************************************	
3A	1	3	C	Thatcher	14.0	100	36 50	61	3 Nor.	G.
				Fortune Montcalm Dakota	40.7	100 97 132	42 24	53 56	2 C.W. 2 C.W. 6R 1 C.W.	=
				JOHN	H. LINT	ON, BRO	WNING			and the same of
3A	1	4	В	Thatcher	40.1	=	Ξ	57 39 43	No. 5 2 C.W. 2 Feed	F., G. F.
Dakota d	estroy	ed by fi	rost.	Dakota						
	174			FRANKI	IN E. F	RIJOUF,	MACOUN			
2A	1	6	С	Thatcher	91.8 39.5	=	Ξ	58 38 49 55	4 Nor. 3 C.W. 1 Feed 1 C.W.	F. G. Pl., Br.
						SYTHE, C	OLGATE			
2A	1	7	В	Thatcher	27.9 80.4 64.2	100 95 86 105	36 36 36 23	62 38 51 52	2 Nor. 3 C.W. 2 C.W. 6R 1 C.W.	I., G. G. —
3A	Te	sts Dis	carded C	on Account of Ronald G. E. E.	Damage	<b>by Droug</b> l	ht, Pests, I	Frost, or C		
				WHEAT	г рос	L DIST	TRICT 6	3		e en
				WESL	EY E. N	UTTALL,	PENSE			
2E	6	6	В	Thatcher	25.0	103	33	62	No. 5	F., G.
				Fortune Montcalm Dakota	62.4	96 96 103	32 39 15	39 51 54	No. 5 3 C.W. 2 C.W. 6R 1 C.W.	G
217	6	7	В	JAME	S BEAT	TY, JR., 2	ADAMS	63	4 Nor	F.C.
2E	0	7	В	Thatcher	45.6	91	28 31	40	4 Nor. 1 Feed	F., G. G. G.
				Montcalm Dakota	26.6	91 98	31 15	52 52	3 C.W. 6R 1 C.W.	G.
Dakota b	adly d	amageo	d by gras	sshoppers.						
3C	6	9	С	Thatcher	33.2	ON, BALC	ARRES	65	4 Nor.	F., G.
				Fortune Montcalm	51.2		=	52	2 C.W. 6R	
Samples i	ncomm	lete		Dakota		7	_	-	-	-
Dampies I				on Account of						

					371 11	-				
Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
				KENNETH	A. Me	CANNEL.	DOONSIDE	<u> </u>		
3A	7	1	В	Thatcher	18.8 51.0 35.3	94 95 90 117	33 42 35 26	64 40 51 54	2 Nor. 3 C.W. 3 C.W. 6R 2 C.W.	G., I. M. M. G.
				L. MEL		ARSON, I				
3A		4	В	Thatcher		111 99 96 —	43 52 54 30	58 38 48	4 Nor. 1 Feed 3 C.W. 6R	Sh., G., F G. F.
Dakota b	adly o	lamage	d by bird	ls and frost.						
24	7	_	В			ARTHY, 0	CORNING 39	40	DJ	CL C F
3A	7	5	Б	Thatcher	39.8 36.5	98 92 —	44 42 27	49 32 46 52	Feed 2 Feed 1 Feed 2 C.W.	Sh., G., F F. F. Dg.
				R. JAME	S HOO	D, JR., W	OLSELEY			
3A		7	В	Thatcher	82.8	103 93 97 109	45 45 47 26	66 41 53 55	2 Nor. Ex. 3 C.W. 2 C.W. 6R 1 C.W.	I. G. —
Dakota b	adly d	lamage	l by bird	ls.						
3B		8 olete, T	C est dama	F. ROSS Thatcher Fortune Montcalm Dakota aged by wind and	24.6 59.7 33.4 8.6	MAN, ROC 104 102 103 119	36 46 40 16	61 34 51 53	No. 5 1 Feed 3 C.W. 6R 1 C.W.	V. G. G. B.P.
Dampies				LAWRENC		WANV F	STERHAZY	7		
3C	7	10	С	Thatcher	31.7 83.6	119 104 104 131	38 42 40 26	58 43 50 53	No. 5 Ex. 3 C.W. 3 C.W. 6R 1 C.W.	F., G. G., M. St.
3C	7	11	В	Thatcher Fortune Montcalm	48.1 82.3	DELL, NE 100 99 100 114	UDORF 31 35 36 15	62 43 50	4 Nor. Ex. 3 C.W. 3 C.W. 6R 3 C.W.	F., G. G. G.
Dakota b	adly d	lamageo	d by fros	Dakotat.	3.0	114	13	47	3 C.W.	_
3A		ests Dis		on Account of I Allan J. Tholl, F	Damage	by Droug	ht, Pests, F	rost, or C	ther Causes	
			С	1111111 ) 1 111011, 1	ccorco.					
			C			L DIST	TRICT 8			*
				WHEAT	r POC					*
3B	8	1	D	GORDON Thatcher	RATHO 28.1 65.3		ALTCOATS 47 52 48		2 Nor. Ex. 3 C.W. 2 C.W. 6R	I., G. G.
3B			D	GORDON Thatcher Fortune Montcalm Dakota	RATHO 28.1 65.3	SEBER, SA 101 94	ALTCOATS 47 52	62 40	Ex. 3 C.W.	I., G. G.
	adly d		D	WHEAT GORDON Thatcher. Fortune Montcalm Dakota  MAURIC Thatcher. Fortune Montcalm	RATHO 28.1 65.3 69.4 10.6 50.4	101 94 88	ALTCOATS 47 52 48 20 LTCOATS 36 51 38	62 40	Ex. 3 C.W.	I., G. G. — F. F. F.
Dakota b	adly o	lamageo	D d by fros	WHEAT  GORDON Thatcher Portune Montcalm Dakota t.  MAURIO Thatcher Fortune	RATHO 28.1 65.3 69.4 10.6 50.4 60.4	BLER, SA 1101 94 88 	47 52 48 20 LTCOATS 36 51	62 40 52 — 53 40	Ex. 3 C.W. 2 C.W. 6R — Feed Ex. 1 Feed	F. F.
Dakota b	8 adly d	lamageo	D d by fros	WHEAT  GORDON Thatcher Portune Montcalm. Dakota t.  MAURIC Thatcher Fortune Montcalm. Dakota t. Thatcher dama  ROBER Thatcher Fortune	RATHO 28.1 65.3 69.4 10.6 50.4 60.4 ged by li 21.3 41.1	BLER, SA 1101 94 88 	47 52 48 20 LTCOATS 36 51 38 29 0, CANA 34 34	62 40 52 — 53 40 49 —	Ex. 3 C.W. 2 C.W. 6R ————————————————————————————————————	F. F. F. F. G., F. G.
Dakota b	8 adly d	2 lamageo	D d by frost C d by frost	WHEAT  GORDON Thatcher Fortune Montcalm Dakota t. MAURICI Thatcher Fortune Montcalm Dakota t. Thatcher dama  ROBER Thatcher Fortune Montcalm Dakota Dakota Dakota	RATHO 28.1 65.3 69.4 60.4 ged by li	BLER, SA 101 94 88 — BLER, SA 124 116 115 vestock.	ALTCOATS 47 52 48 20  LTCOATS 36 51 38 29  C, CANA 34	62 40 52 — 53 40 49 —	Ex. 3 C.W. 2 C.W. 6R ————————————————————————————————————	F. F. F. —
Dakota b	8 adly d	2 lamageo	D d by frost C d by frost	WHEAT  GORDON Thatcher Fortune Montcalm Dakota t. MAURICI Thatcher Fortune Montcalm Dakota t. Thatcher dama  ROBER Thatcher Fortune Montcalm Dakota Dakota Dakota	RATHO 28.1 65.3 69.4 E A. GI 10.6 50.4 60.4 ged by li 21.3 41.1 47.9	BLER, SA 101 94 88 BLER, SA 124 116 115 vestock. UCKLAND	ALTCOATS 47 52 48 20  LTCOATS 36 51 38 29  , CANA 34 34 34 34	62 40 52 — 53 40 49 — 57 36 48	Ex. 3 C.W. 2 C.W. 6R ————————————————————————————————————	F. F. F. F. G., F. G.

### Wheat Pool District 8—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
	-			T. RAT	RRV DI	XON, KAI	MSACK			
3B	8	5	В	Thatcher	18 8			58	No. 6	FC
JD	0	,	Ь	Fortune	42.9	126 106	32 32	34	1 Feed	F., G.
				Montcalm	38.6	112	40	46	1 Feed	G. F.
				Dakota	7.0	139	17	51	3 C.W.	Dg.
										- 8.
			-	HENRY W	. WASY	LYSHYN	, GORLIT	Z		
3C	8	6	D	Thatcher	36.9	98	29	60	4 Nor.	G., F. G., M.
				Fortune	56.5	99	36	32	2 Feed	G., M.
				Montcalm	60.2 12.2	96 102	30 20	46 55	2 Feed 3 C.W. 6R 2 C.W.	G. G.
				Dakota	12.2	102	20	33	2 C.W.	G.
				HARRY J.	YAREM	CHUK, H	INCHLIF	TE.		
4A	8	8	В	Thatcher	22.7	-	-	58	No. 5 3 C.W. 3 C.W. 6R 2 C.W.	F., G. M.
				Fortune	50.7	_	-	41	3 C.W.	M.
				Montcalm	35.4	_	_	47	3 C.W. 6R	_
				Dakota	3.3	_	-	52	2 C.W.	Dg.
	T	ote Die	hobres	on Account of l	Damaga	by Drongl	ht Posts I	Crost or O	ther Course	
2D		9					ut, I ests, I	1050, 01 0	ther Causes	
3B	0	9	В	Marvin Johnson	, Norqua	ly.			,	
									STATE STATE	
				WHEAT	r POC	L DIST	TRICT 9	9		
				TIADA	OID TIT	ATIOTT TA	CRATAT			
3C	9	1	C	Thatcher	25.3	116	30	62	No. 6	FC
30	,		0	Fortune	38.3	110	35	42	1 Feed	F., G. F.
				Montcalm	24.3	116	37	47	1 Feed	F., Pl.
				Dakota	6.2	117	27	54	1 C.W.	
			-							
				LO	RNE Y	NO, LER	oss	-		
3C	9	3	C	Thatcher	26.7	115	37	51	Feed	Sh., G., F.
				Fortune	77.7 48.7	99	45 37	40	Ex. 1 Feed	F.
				Montcalm	48.7	99	37	42	3 Feed	D.
				Dakota	9.3	115	23	50	2 C.W.	Dg.
			7.	RH	ELEN I	KELLN, D	TIVAT.			
2B	9	5	В	Thatcher	33.6	106	40	64	1 Nor.	_
				Fortune	78.9	94	43	40	Ex. 3 C.W.	G.
				Montcalm	64.7	94	42	50	3 C.W. 6R	G.
_				Dakota	4.9	106	26	55	1 Nor. Ex. 3 C.W. 3 C.W. 6R 1 C.W.	_
Damaged	by liv	vestock.								
-				ADTUID	U STE	MENG D	DAKE			
2B	9	6	C	Thatcher	35 3	124 D	37	55	No. 5	Sh., G.
	,		0	Fortune	95.8	124	39	38	Ex. 1 Feed	F.
				Montcalm		. 114	35	46	1 Feed	F. Pl., F.
				Dakota	8.3	* 130	15	52	3 C.W.	Dg.
		_	-	REINHOL				7		-
3C	9	7	В	Thatcher	28.1	103	36	56	No. 6	F.
				Fortune	46.7	99	34	40	Ex. 1 Feed	F. F.
				Montcalm	43.7	96 115	34 23	49	1 Feed	г.
Dakota b	adly d	lamaged	hy fros	Dakota		113	23			
	uary c	umagee	. Dy 1103							
				THOMA	S COOL	PER, WES	T BEND			
3C	9	9	В	Thatcher	25.3	112	32	63	No. 6	D., G., F.
				Fortune	48.8	108	32	42	Ex. 1 Feed	F. F.
				Montcalm	39.7	110	31	48	3 C.W. 6R	F.
				Dakota	4.2	142	20	52	Ex. 1 Feed 3 C.W. 6R 2 C.W.	Dg.
			-	HAPOI	DET	AYLOR, E	TEROS			
3C	9	10	В	Thatcher	26.3	AILOR, I	LEITOS	59	Feed	F.
			2	Fortune	47.3	_		41 .	Ex. 1 Feed	F.
				Montcalm	42.7			50	1 Feed	F. F.
				Dakota	4.9	-		46	4 C.W.	F.
Yields no	t used	in zone	summa	ries.		2 5				
				WHEAT	POO	L DIST	RICT 1	0		
				EARLE I	B. SOM	ERVILLE,	MILDEN			
2B	10	4	В	Thatcher	18.5	'	23	60	No. 5	Sh., G., F.
				Fortune	48.2		25	42	Ex. 1 Feed 3 C.W. 6R 1 C.W.	F.
				Montcalm	38.3	-	28	47	3 C.W. 6R	F.
				Dakota	8.4	-	14	54	1 C.W.	_

## Wheat Pool District 10-Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Gradin; Remark
2B	10	6	В	ROBERT G Thatcher Fortune Montcalm Dakota	9.7 17.2 13.1 5.2	108 106 108 109	22 24 29 19	63 40 48 54	4 Nor. 2 C.W. 4 C.W. 6R 1 C.W.	F. Pl.
2B	10	9	С	PETER Thatcher Fortune Montcalm Dakota	20.9 33.8	88 92 121	26 20 25 16	64 41 51 55	1 Nor. Ex. 3 C.W. 2 C.W. 6R 1 C.W.	G. —
1A 2B	10	ests Dis	B D	on Account of I Albert G. Hunte Russell Adair, H	r, Riverh		nt, Pests, F	rost, or O	ther Causes	
				WHEAT	POO	L DIST	RICT 1	1		
2F		sts Dis	C	on Account of I Bruce L. Ramse			nt, Pests, F	rost, or O	ther Causes	
				WHEAT	POO	L DIST	RICT 1	2		
2D		3	В	Thatcher Fortune Montcalm Dakota	D G. K	APPEL, L	EIPZIG — — —	63 34 40 44	No. 5 1 Feed 3 Feed 4 C.W.	F., G. F.
Yields dis	carded	due to	damage		CONTRACT	ADT DAY	DWINTON			
3E	12	8	С	Thatcher	48.6 74.3 70.7 12.0	112 108 105 132	33 37 44 24	37	4 Nor. 2 Feed 2 C.W. 6R 3 C.W.	Spr. G., M.
3G	12	10	В	WILLIAN Thatcher Fortune Montcalm Dakota	30.7 54.6 33.0 9.2	108 101 102 108	34 36 38 24	65 40 52 54	3 Nor. Ex. 1 Feed 4 C.W. 6R 1 C.W.	I., F. F. Pl., Br.
2D		sts Dis	carded B	on Account of I	_	by Drough	nt, Pests, F	rost, or O	ther Causes	
				WHEAT	POOI	L DIST	RICT 1	3	4	
3C	13	1	С	MERVYN Thatcher Fortune Montcalm Dakota	J. PAE 34.8 55.3 47.7 10.2	PROSKI, I	LANIGAN	63 41 48 55	4 Nor. 2 C.W. 1 Feed 1 C.W.	F., G. Pl.
2B	13	2	В	E. GERA Thatcher Fortune Montcalm Dakota	62.3 6.4	VERS, W	ATROUS	— 49 54		_  Pl.
Thatcher	and F	ortune	destroye	d.	0.4			7 3		
3C	13	9	С	ALPHONS Thatcher Fortune Montcalm Dakota	SE SCH 12.0 49.5 32.6	LOSSER,	BREMEN	35	Feed 1 Feed 3 Feed	Sh., G. F. F.
Dakota de	estroye	ed by fr	ost.							
3C	13	10	В	Thatcher	18.9 36.3 30.8 9.6	111 103 111 119	25 25 25 24 17	62	3 Nor. Ex. 3 C.W. 4 C.W. 6R 1 C.W.	F. G. Pl.

## Wheat Pool District 13-Continued

				wheat P	ool Dis	trict 13—	-Continue	1		
Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remark
3B	13	11	В	FLORIAN Thatcher Fortune Montcalm Dakota	22.5 50.3	MER, LAKI 105 103 106 113	29 34 30 20	61 42 46 52	No. 5 Ex. 1 Feed 1 Feed 1 C.W.	F., G. F. F.
2B	13	sts Dis	carded	on Account of I Gary W. Freede	Damage n, Dundi	by Drough	t, Pests, F	rost, or O	ther Causes	
y = 1				WHEAT	POO	L DIST	RICT 1	4	100	
3B		3 olete. Y	B ields disc	Thatcher	=	RKER, NA	30 30 30 28 18	63 38 48	4 Nor. 1 Feed 3 C.W. 6R	F., G. G. B.P.
4A	14	7	В	CLAREN Thatcher Fortune Montcalm Dakota	29.3 54.5 31.6	117 104 104 136	s, STEEN	65 41 49 56	2 Nor. 2 C.W. 3 C.W. 6R 1 C.W.	Bl. B.P.
4A	14 14 14	ests Dis	B D C B	on Account of Alfred Weinham Leonard T. Sigf Bernard A. Ren Mac Chimko, C	dl, Lintla rid, Nora neberg, K	W.	t, Pests, F	rost, or O	ther Causes	
				WHEAT	POO	L DIST	RICT 1	5		
3G Dakota d		4	В	ThatcherFortuneMontcalmDakota	11.0 9.5	DEI, ROST 105 92 91 125	28 32 28 18	63 37 48	No. 5 1 Feed 1 Feed	F., G. G. F., Pl.
4B		6	В	LAWRENG ThatcherFortuneMontcalmDakota	26.5 79.5	MITH, SHI	ELL LAKE	49 39 47 48	Feed Ex. 1 Feed 1 Feed 3 C.W.	Sh., G. F. F., G. Dg.
4B	15	7	В	IRVIN Thatcher Fortune Montcalm Dakota	53.7 108.5 77.1	NG, MONT 105 102 103 120	NEBO 28 30 29 14	63 43 53 53	2 Nor. 2 C.W. 2 C.W. 6R 1 C.W.	G., I. 
				WHEAT	POO	L DIST	RICT 1	6		
3G	16	1	В	KENNETH Thatcher Fortune Montcalm Dakota	31.3 73.0	104 101 98	MAYMON 42 36 48	63	No. 5 Ex. 1 Feed 3 C.W. 6R	F., G. F. G.
Dakota d	estroy	ed.								
3B	16	2	В	GEORGE Thatcher Fortune Montcalm Dakota	15.8 30.3	102 100 100 107 119	12 8 8 8 5	53 37 47	No. 5 1 Feed 1 Feed	=
Dakota b	adly d	amaged	by fros	t.		,				
3E	16	4	С	ThatcherFortuneMontcalmDakota	11.9 34.4 11.3	TTE, JACK	TFISH LAI	55 39 46	No. 5 Ex. 1 Feed 1 Feed	Sh., F. F. F., Pl.
Dakota b	adly d	amaged	by fros	t.						
3E	16	5	С	Fortune Montcalm	86.0 53.7	113 106 101	39 36	64 41 49	3 Nor. Ex. 3 C.W. 2 C.W. 6R	F. G.
3E	16	5	С	Fortune	86.0	106	- 39	64 41 49 52	3 Nor. Ex. 3 C.W. 2 C.W. 6R 1 C.W.	F. G.

#### Wheat Pool District 16—Continued

Cereal Variety Zone	Dist.	Sub- Dist.	Test Desig- nation	Varieties	Yield Bushels per Acre	Days Seeding to Ripening	Plant Height in Inches	Pounds per Measured Bushel	Commercial Grades	Grading Remarks
				WALT	ER ILN	ESKY, RA	ANGER			
4B	16	10	D	ThatcherFortuneMontcalmDakota	86.4 57.9	103 101 98 103	36 42 44 26	57 39 48 50	No. 6 1 Feed 3 C.W. 6R 2 C.W.	F., G. G. G. Dg.
				RONALI	M. PE	THICK, N	AYFAIR			
3G	16	10	Е	ThatcherFortuneMontcalmDakota	24.6	103 106 104 126	23 23 28 16	58 39 43 51	No. 6 Ex. 1 Feed 2 Feed 1 C.W.	Sh., G., F. F. —
				ROY B.	OLLIS	NORTH	MAKWA			
3H	16	11	В	ThatcherFortuneMontcalmDakota	27.9 9.1	115 120 122	32 33 34	63 33 36	No. 5 2 Feed 3 Feed	F., G. 
Dakota d	estroy	ed by f	rost.							
	Te	sts Di	carded	on Account of	Damage	by Drough	ht, Pests,	Frost, or (	Other Causes	
3G 3E 4B	16	3 7 9	B B C	Jack Bouma, No Benny Leer, Bu Arnold Epp and	tte St. Pi	erre.	airholme.		-	

#### CONCLUSIONS

Severe frosts during August of 1950 resulted in a disappointing conclusion to one of the most promising crop seasons in the history of Saskatchewan. The spring was late but moisture reserves in most areas were adequate at seeding time. With ample rainfall and favorable conditions during the growing period crops grew tall and rank. Cool weather and continued rainfall during July and August retarded maturity, however, and much of the cereal grain crop was still in the early filling stage when the frosts occurred. As a result, heavy damage in yields and grades was sustained.

Variety tests were badly frozen in most cases. Generally, the wheat and barley projects were sufficiently advanced to provide adequate and accurate yield data, but the value of the crop comparison project was seriously reduced. On the brighter side, however, only a small number of tests were destroyed by drought, grasshoppers, sawflies and other hazards which usually accompany a dry season. The results of the wheat test in 1950 illustrated the continuing supremacy of Thatcher as the best variety for general use under Saskatchewan conditions. Rescue and Redman have definite limitations, but both are useful in some zones of the province. Lee, one of the newer varieties, requires further large-scale testing, but is not likely to supersede Thatcher in most districts.

Moore barley, a new variety originated in the United States, gave a variable performance in tests carried out during 1950. It should be tested further against established varieties such as Vantage and Montcalm. Vantage, although relatively new, has already been recommended for a large portion of Saskatchewan. It gave excellent results in the 1950 tests.

Generally, the results of the crop comparison tests were disappointing. It is planned, however, to continue this project during the coming year. If successful, this will provide information to supplement the results obtained during 1948 and 1949.

This concludes the report of the 16th annual variety testing program conducted by the Saskatchewan Wheat Pool. As in past years, the widespread distribution of tests throughout the entire grain growing area of the province was one of the main features contributing to its success. This distribution is made possible by the Junior Co-operators on more than 300 farms in Saskatchewan, who willingly offer their services to assist the variety testing activities of the organization. Through their efforts these young people are rendering an important service to agriculture—a service which could not be provided from any other source.

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